IX

SOUTH AMERICAN TRADE OF BALTIMORE

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History is past Politics and Politics are present History.—*Freeman*

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IX

SOUTH AMERICAN TRADE OF BALTIMORE

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SOUTH AMERICAN TRADE OF BALTIMORE.

INTRODUCTION.

The influence of commerce on the history of Baltimore has been very marked. The situation of the town was determined by the shipping interests. Its earliest importance, dating from the Revolutionary War,[1] was due to its trade. Among the early commercial interests of Baltimore, none was more extensive than its trade with the West Indies and South America. Concerning its South American trade, especially, there is very little definite information readily accessible, although some reference to the topic is usual in accounts of Baltimore history and commerce.[2] As a study in local history, therefore, the South American trade of Baltimore offered an inviting field for investigation.

As a concrete study of the commercial changes of the present century, the inquiry has proved even more interesting. Within the last one hundred years is contained practically the whole commercial history both of Baltimore and of Spanish South America and Brazil. During this period, methods of transportation have been completely changed in the direction of greater initial cost and increased economy in operating expenses—in the direction of greater concentration of trade and greater regularity in transportation. Trade has increased greatly in amount, but the profit on a single transaction is much less; trade no longer consists in

[1] Baltimore's custom house was established in 1780. Griffith: *Annals of Baltimore*, 84.

[2] Mayer: *Baltimore*, 80-81; Scharf: *Resources of Maryland*, 182, 207-208; *History of Baltimore City and County*, 382-383; Fisher: *Gazetteer of Maryland*, 52.

a series of lucrative "ventures." It has been my aim to make a concrete study of the effects of these general commercial changes on the localization of industry, as well as a study in local economic history.

The most important general sources on which this study is based are: (1) The custom-house records at Baltimore, to which freest access was given me by Dr. Frank T. Shaw, Collector of the Port, and in the use of which I received the assistance of Andrew Banks, Esq., of the record department. From these records I made detailed study of the exports and imports at Baltimore for the calendar years 1790, 1803, 1810, 1811, 1812, 1813, 1815, 1816, 1823, 1827, 1834,[1] 1838, 1848, and 1858, and the fiscal years 1848, 1859,[2] 1863,[2] 1867,[2] 1888,[3] 1892, and 1893; and of the entrances from 1827 to 1858, and from 1865 to 1870.[4] (2) The annual government reports on *Commerce and Navigation* and *Commercial Relations*. (3) The file of the Baltimore *Price Current*, from 1839 to 1874, and the *Journal of Commerce*, its successor, from which I gained very full and valuable information. I secured access to the complete file through the courtesy of Francis M. Goodwin, Esq. Other sources that I have used are indicated in the footnotes. To the gentlemen named above, and to Theodore A. Martin, Esq., I owe public acknowledgment for assistance in gathering my materials; and to Associate Professor Sidney Sherwood and Dr. Henry L. Moore, of the Johns Hopkins University, for valuable criticisms and suggestions as to the manner of presenting the results of my study.

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[1]Imports for nine months ending September 30.

[2]Exports only. [3]Imports only.

[4]The desire to give special attention to the beginning of the trade and the effect of the War of 1812 led to the selection of the earlier years. The choice of later years was influenced considerably by the incompleteness of the records. The aim was to select years which would show variations in the internal character of the trade.

CHAPTER I.

FROM THE BEGINNING OF THE TRADE TO 1825.

The origin of Baltimore's South American trade is to be found in its trade with the West Indies. From the establishment of Baltimore as a port of entry, and even previously through the port of Annapolis, Baltimore carried on a trade with the West Indies, which was comparatively extensive and extremely lucrative. The West India trade in its turn was but an extension of the coasting trade. The almost continuous European wars from 1792 to 1815 very largely interrupted direct trade between the mother country and the colonies. The danger was too great to permit merchants to risk the valuable vessels and cargoes necessary for the long voyage from Europe to the West Indies. The United States was the only neutral country; a carrying trade consequently sprang up through its ports between Europe and the islands.

Baltimore gained a large share of that trade. It possessed several decisive advantages: (1) its proximity to the wheat region of western Virginia; (2) its extensive milling industry; (3) its proximity to the foreign markets; (4) the famous "Baltimore clipper;" and (5) its spirit of enterprise.

The combination of the first two advantages made Baltimore an excellent market for flour, the staple export to the West Indies, and later to South America. With overland transportation, the advantage of greater proximity to the lands then known as the west was at the maximum. Baltimore was also advantageously situated for the milling industry. Six streams near the city, each with a considerable fall, gave a remarkable supply of motive power. Baltimore is said to have possessed the first flour mill in the United

States—the Patapsco, completed in 1774, situated at Ellicott City—and the first mill operated by steam—the Phoenix Mill, in operation in 1795.[1] In 1823 it was said:[2] "Baltimore is celebrated for the fineness of its flour, the superiority of which arises from the perfection to which they have arrived in the machinery by which it is manufactured." In 1825 there were sixty mills within a radius of twenty miles from Baltimore.[3]

Baltimore was situated forty-eight hours nearer the West Indies and South America than New York. This advantage was of considerable importance while the trade was carried on in small coasting vessels.

The transportation facilities of Baltimore were especially suited to the character of the trade and the conditions of the time. The "Baltimore clipper" was a vessel peculiar to the Chesapeake. It was schooner-rigged, and possessed the advantage of sailing closer to the wind than other craft—a property that enabled it to escape privateers. It would be difficult to emphasize too strongly this advantage during the period of the European wars.

Baltimore was a new town. It had been laid out less than fifty years before the Revolution. It had grown by immigration. The result was a spirit of enterprise throughout the community, and a knowledge concerning trade conditions in all the principal countries, that only new communities possess.[4] The element of risk in the West India trade, with its promise of large profit, offered an opportunity especially suited to the inhabitants of Baltimore. Their spirit led them to select the adventurous undertaking, and the Baltimore clipper enabled them to carry it through to success.

These advantages combined to make Baltimore "the regular *entrepot* between Europe and the West Indies."[5] The

[1] *Journal of Commerce*, March 18, 1882, September 4, 1886.
[2] Duncan: *Travels in America*, i. 235.
[3] Jared Sparks, in *North American Review*, xx. 123.
[4] *Ibid.*, 115. [5] Brantz Mayer: *Baltimore*, 63.

extension of the trade to South America was perfectly natural. The earliest South American trade of Baltimore was with the Guianas, and differed in no particular from the West India trade, either as to supply or demand. Flour was alike the chief article of demand, and sugar, molasses, and coffee, the chief articles of supply.

The Spanish colonial policy was one of restriction in the extreme. The aim was to monopolize the trade of the colonies.[1] An extensive contraband trade resulted, in which Baltimore was very successful. To the Spanish policy seems largely due the early trade with the Guianas. Either the products from Venezuela and Brazil were exported through British and French Guiana, or else restrictions on the trade of the former countries prevented the production of the commodities which they exported later—at all events, the imports from the Guianas consisted of articles later received from Venezuela and Brazil, and practically ceased upon the beginning of trade with the latter countries. By 1810, Baltimore had secured trade with all the countries on the east coast of South America. Revolution had opened to commerce the northern colonies—Colombia and Venezuela—and the Plata colonies—Uruguay and Argentina. The beginning of trade with Brazil was due to the establishment of the Portuguese court at Rio Janeiro upon Napoleon's invasion of Portugal, and the consequent demand for European goods. In 1810, the exports from Baltimore to Brazil amounted to more than three times the value of the imports, and seventy per cent. of the exports consisted in foreign goods. Baltimore's trade with Brazil was thus due at first to the extensive carrying trade which the European wars had given to the United States as the neutral nation.

[1] It is, however, an error to state that none but Spanish vessels were allowed to trade with the colonies. *American State Papers*, xi. 329, 333. At least three Baltimore vessels received regular clearance papers from the Spanish officials at La Guayra during 1800 and 1803. Clearance papers do not, however, usually accompany the manifests.

The demand in Brazil for foreign goods occasioned the development of its resources; the exports to Brazil preceded and occasioned the imports from Brazil. After the removal of the internal restrictions on the commerce of South American states, Spanish privateers offered no insurmountable barrier to Baltimore traders.[1]

To the Revolutionary War is to be largely ascribed the beginning of Baltimore's trade. Baltimore was not blockaded, and Annapolis, its rival on the Chesapeake, lost prestige as the centre of royalist influence. In 1812, however, Baltimore was the port most carefully blockaded, and the city's trade was temporarily cut off. From 1813 to the close of the war, the blockade was complete. But the prosperity of the city is said to have been checked very little—trade was carried on at other ports, but still on Baltimore account, and returned to Baltimore upon the conclusion of the war.[2] Another plan was largely adopted by Baltimore vessel-owners. A number of the vessels heretofore engaged in the South American trade took out letters-of-marque or were fitted out as privateers. For the exploitation of new markets in South America was substituted direct spoliation of the enemy's ships—a change still more hazardous and one offering still greater profit. Two prizes of the schooner Comet in 1812—of vessels from Demerara and Surinam[3]—brought into Baltimore the largest imports it received from those countries until the marked increase in the sugar trade between 1855 and 1860. The war ended the trade with the Guianas. Yet the general effect of the war on the trade of Baltimore with South America was merely temporary; upon the close of the war, the trade resumed its former proportions.

One effect of the war, however, was lasting. To a large

[1] Brantz Mayer: *Baltimore*, 80.

[2] *North American Review*, xx. 112.

[3] Now British and Dutch Guiana. Then both under British control.

degree, it marked the decline of the re-export trade of Baltimore. It also promoted the introduction of domestic manufactures. Baltimore was cut off from direct foreign trade more than other cities; and its abundant water supply furnished the necessary power. Consequently, Baltimore was among the first cities to establish cotton factories.[1] The competition with European goods after the close of the war was very injurious to the factories in that city. The system of minimum valuation, under the tariff of 1816, afforded increased protection to cottons, as the price of lower grades was reduced.[2] Thus toward the close of this period, the factories near Baltimore again became prosperous, and domestic cottons came to take the place of foreign as articles of export. In 1827, the cottons exported were for the first time mainly domestic, and from that date the foreign cottons exported were inconsiderable. The most extensive demand for cottons was on the west coast of South America, where at first, with money very abundant, it was not difficult to obtain the high prices a protected industry required.

Peru was the last country to sever its connection with Spain. It was the principal seat of colonial government, and was thought to be the richest of the Spanish colonies. It contained rich silver mines, and at Lima the tributes from all the Spanish American colonies were collected. The trade of Peru was considered exceptionally profitable, and was reserved for a monopoly of Cadiz merchants. The exportation of gold and silver, except to Spain, was absolutely forbidden. Commodities were kept few, and money was abundant. A large premium was thus offered for the goods demanded, when the artificial restrictions were removed.

Baltimore followed the spread of revolution in Peru as

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[1]Three of its factories were established during the period of commercial restriction before the war. *North American Review*, xx. 127.

[2]See Taussig: *Tariff History of the United States*, 30-31.

well as in the other states. Its trade with that country sprang up after the war of 1812. A vessel cleared that port in 1816 with a cargo for Lima and Canton—thus connecting Baltimore's Peruvian with its previous Chinese trade. In 1823 its exports both to Peru and Chile were considerable, and its imports, consisting mainly of specie and bullion,[1] were much larger. In that year, Baltimore received by far the largest part of the imports of the precious metals into this country from the west coast of South America.[2] Specie continued the chief import into Baltimore from Peru and Chile well into the next period. The continuous flow of silver into the United States from Peru and Chile is to be connected, not only with its superabundance there relative to commodities, but its overvaluation in this country during the "silver period" in the history of our coinage.[3]

The period from the beginning of the South American trade to 1825 was one of exploitation. The countries had been to such an extent closed to commerce that rich gains were secured by the earliest traders. The general spirit of the times was in favor of hazardous trade.[4] This statement is particularly true concerning the spirit of Baltimore traders. Their vessels were small and swift, unsuited to regular commerce, but peculiarly fitted to make irregular voyages, run blockades, and escape privateers. The advan-

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[1]In the case of Peru the proportion was 60 per cent., and in the case of Chile, 26 per cent. The exports were only 33 per cent. as great as the imports.

[2]During the nine months ending September 30, 1823, Baltimore imported $123,225 in coin from Peru and Chile; for the United States, during the year ending September 30, 1823, the imports of coin from "Spanish South America and Mexico" were only $121,970, according to the report on *Commerce and Navigation.* Unfortunately, early returns for coin and bullion are particularly untrustworthy.

[3]So Prof. Laughlin terms the period down to 1834. *History of Bimetallism in the United States,* 30, 55. See also *Hunt,* vi. 62-64.

[4]*Cf.* Gertrude Selwyn Kimball: *The East India Trade of Providence,* 3.

tages of Baltimore were at their greatest during this period, before improved transportation began to obliterate distance. Baltimore, in the exploitation of the markets of Spanish America, gained a large share of the benefits Spain had reserved for herself.

The period was one of beginnings. At its close, the trade with South America had become fixed along certain lines; during the next period, it developed along those lines. Flour formed the largest article of exportation to the east coast of South America, and was a very important export to the west coast. The re-export trade was rapidly declining toward the close of the period. During the period, imports from the different countries had varied considerably. At the beginning of the century, sugar and coffee were crops of the West Indies, Venezuela, the Guianas, and Brazil. In Brazil, sugar was the older crop; coffee was introduced as late as 1774.[1] In 1811, Baltimore's imports from Brazil were composed most largely of hides and sugar, coffee forming only eleven per cent. of the whole. Brazil, it has been said, could raise coffee more cheaply than most of its competitors by one-fourth, and this advantage made coffee the great crop of Brazil, while sugar passed largely to its less favored rivals. In 1823, coffee formed fifty-nine per cent. of the total imports from Brazil. Hides formed the second import from Brazil, and the chief article from Uruguay and Argentina. Cocoa, coffee, and indigo were the leading imports from Venezuela; silver, copper, and platinum, from Peru and Chile.

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[1] *Hunt*, xxiii. 172-174.

CHAPTER II.

FROM 1825 TO THE CLOSE OF THE CIVIL WAR.

I. Trade with the East Coast.

Exports.

Flour is the one line of exports to the east coast of South America that requires special treatment. In 1827 it formed sixty-eight per cent. of the total exports, and in 1858, fifty-nine per cent. In the trade with Brazil the importance of flour is still more marked; in 1827 it constituted seventy-one per cent. of the total exports, and in 1858, seventy-five per cent.[1] Flour has proved the determining factor in the export trade of Baltimore to the east coast of South America.

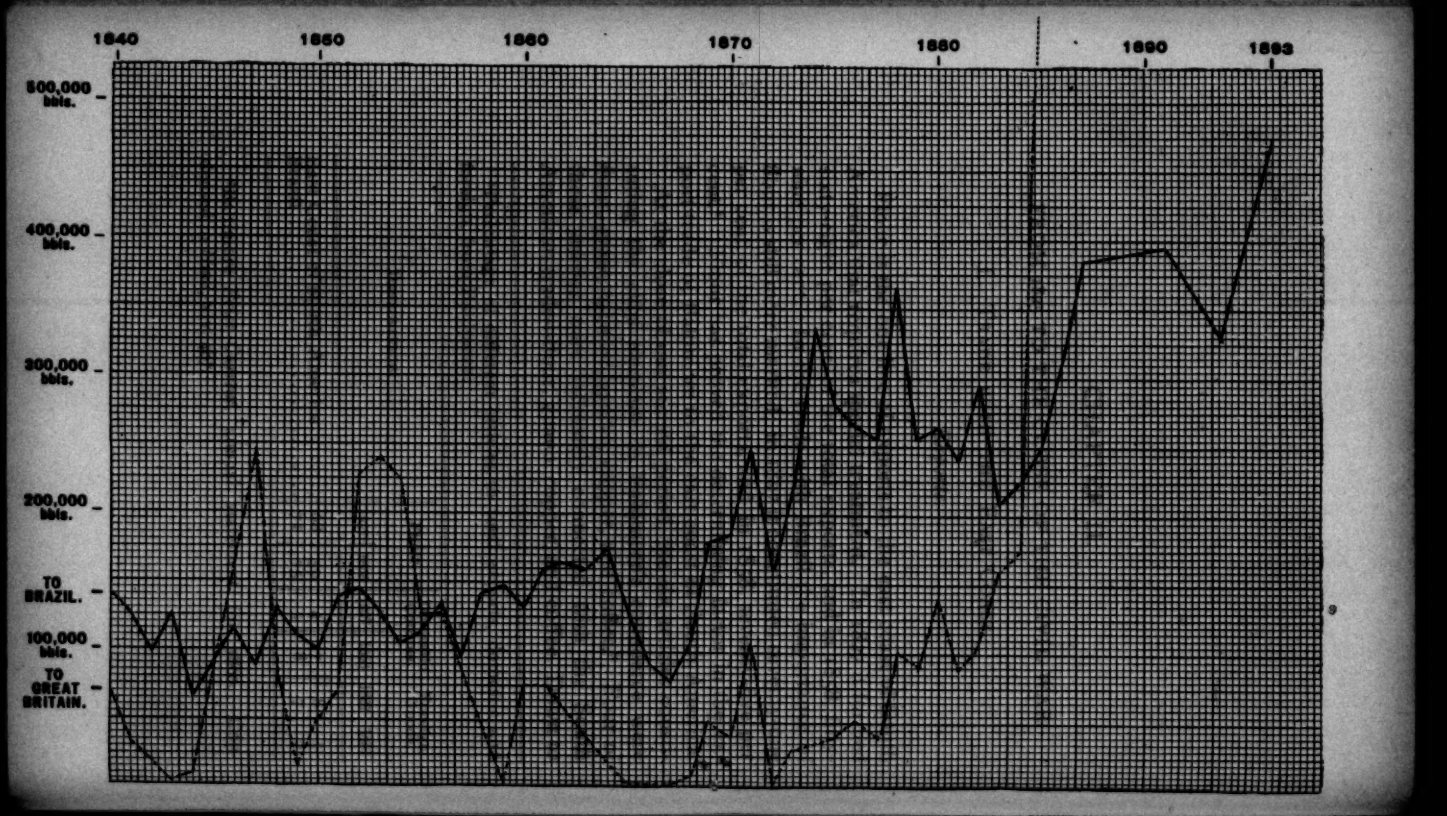
At the close of our second period, the six articles constituting the chief elements in Baltimore's commerce were flour, grain, tobacco, guano, copper, and coffee.[2] Four of these articles were intimately connected with the South American trade—flour, guano, copper, and coffee. Down to

[1] Percentage of different articles to total exports, domestic and foreign, from Baltimore:

Destination.	Flour.		Domestic Cottons.		Foreign Goods.	
	1827	1858	1827	1858	1827	1857
East Coast of South America	68	59	4	7	8	1
Brazil	71	75	5	8	7	2

[2] Baltimore *Price Current*, annual statement for 1860. Condensed in *Hunt*, xiv. 487.

1940
1950
1960
1970
1980
1990
2000
600,000 bbls.
400,000 bbls.
200,000 bbls.
250,000 bbls.
100,000 bbls.
BRAZIL TO GREAT BRITAIN


1840
1850
1860
1870
1880
1890
1893
500,000 bbls.
400,000 bbls.
300,000 bbls.
200,000 bbls.
TO BRAZIL.
100,000 bbls.
TO GREAT BRITAIN.

the Civil War, Baltimore maintained a position second only to New York as an exporting point for flour.[1] This position it held by means of its South American trade.

The flour destined for Brazil and the West Indies formed by far the largest and most uniform element in Baltimore's exports. The temporary fluctuations, which are so noticeable in the export of flour to Great Britain, are almost entirely absent in the export to Brazil and the West Indies. This difference is shown clearly in the accompanying diagram. The fluctuations in the trade with Great Britain were due principally to three causes: (1) The flour was mainly of western production. Hence the question of transportation from the interior formed a disturbing element in that trade.[2] (2) The market was much more sensitive than in the case of Brazil. The effect of a good or bad season was thus very marked. (3) The influence of European conditions, such as the Crimean War (1854-1856), was very apparent. The fact that the export to Brazil and the West Indies was not subject to such marked variations rendered it much more fit to serve as the basis of Baltimore's flour trade. The flour exported to Brazil was mainly of eastern manufacture; the demand was for consumption among the more wealthy classes, and was almost constant in amount.

The exports to South America and the West Indies were similar, both in composition and the conditions to which they were subject. Both lines of export show a constant increase throughout the period. The export to Great Britain was largest between 1846 and 1855; during that decade the average export of flour there was larger than to any

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[1] *Price Current*, annual statement for 1857.

[2] Thus the increased receipts of Ohio flour upon the completion of the Baltimore and Ohio to Wheeling in 1853, increased the proportion of flour exported to Europe. The decline in receipts and shipments of western flour during the years 1856 to 1859 was attributed to the action of railroads in favoring through traffic, and thus diminishing the advantage of Baltimore over New York from its greater proximity to the west. *Price Current*, annual statement for 1859.

other country;[1] the next five years brought about a marked decline. From 1846 to the close of the period, the West Indies received more flour on the average than Brazil, but less than South America. Yet during the whole period the trade with Brazil was becoming more firmly established, and it withstood the shock of the Civil War better than any other branch of Baltimore's export trade in flour.

The flour exported to other South American countries than Brazil was by no means so constant in amount. During the whole period, the export to the Plata, as well as to Brazil, was increasing in quantity; the flour trade with Venezuela, however, was constantly declining. The total exports from Baltimore to Venezuela remained almost constant during the twenty years before the Civil War; but the relative importance of flour among the exports fell from forty-nine per cent. in 1838 to twenty-two per cent. in 1858. The exports to Venezuela had thus come to consist much more largely in mixed cargoes. The Civil War marked the end of Baltimore's export trade with Venezuela;[2] it also

[1]Exports of flour from Baltimore, by barrels:

Destination.	Average 1840 to '44	Average 1845 to '50	Average 1851 to '55	Average 1856 to '60	Average 1861 to '65
Brazil.....	107,438	108,021	122,725	128,087	154,085
Uraguay } .. Argentina }	7,134	12,483	17,808	25,977	10,881
Venezuela.....	12,737	10,189	8,650	3,988	726
Great Britain..	25,530	112,320	175,841	67,055	38,476
West Indies...	99,121	110,329	139,918	150,586	85,561
Other Countries	32,321	83,221	72,863	87,304	32,451
Total.....	284,281	436,563	537,805	462,997	322,180

Returns for 1845, and exports to Uruguay, Venezuela, and the West Indies for 1846, are not available.

[2]Since 1869, total domestic exports from Baltimore to Venezuela have amounted to less than $16,000—the shipments scattered over seven different fiscal years. Within the last decade, at least, the only commodity exported has been bituminous coal. Since the war, the export trade to Venezuela, of which flour constituted 24 per cent. in 1892, has become concentrated at New York, and is carried on almost entirely by means of steamers, mostly regular steamers under the American flag. In 1895, 80 per cent. of the total domestic exports was carried in American steamers and 13

marked the end of the importation of coffee from that country.

During the period before the Civil War, Brazil received the larger part of the exports from Baltimore to the east coast of South America, although not the preponderant share it has received since the war. In fact, in 1858 the exports to Brazil constituted only fifty-four per cent. of the total exports to the east coast, against eighty-one per cent. in 1827, seventy-eight per cent. in 1838, and seventy-two per cent. in 1848. The export trade with Brazil was constantly increasing in amount; its apparent decline relative to the trade with the entire coast was due to special circumstances affecting the exports to the other countries. An export trade with British Guiana had begun again about 1845, and had increased with the increased demand for sugar at Baltimore; and an export trade in bituminous coal with Aspinwall had sprung up. Later history shows, however, that extensive trade with other countries than Brazil has proved transient; hence our chief inquiry is as to the character and the composition of the export trade of Baltimore with Brazil.

It has already been shown that the chief constituent of the exports to Brazil has been flour. The favorite description of flour was that produced by city mills. Owing to the warm climate of Brazil, a high quality of flour has been necessary. That made from the best winter wheat of Maryland and Virginia has been found to possess the best keeping qualities. This fact accounts largely for Baltimore's early trade to the West Indies and South America. About 1839 and 1840 the quality of Baltimore flour deteriorated, and the strongest complaints were received from Rio Janeiro; Richmond flour, made out of similar wheat, was preferred.[1] It

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per cent. in foreign steamers. Percentage of the domestic exports to Venezuela:

	1869.	1878.	1881.	1895.
From New York	69	86	95	99½
From Philadelphia	28	13	4	....

[1] *Price Current*, April 18, May 30, August 1, 1840, February 6, 1841.

was feared that the laws for the inspection of flour were not sufficiently stringent, and a new grade, higher than the superfine, was instituted in 1840, to be known as family flour. A family flour was put on the market by Baltimore millers, which by 1844 became recognized as excellent in this country, and as standard in Brazil.[1]

In the manufacture of flour for Brazil, Richmond and Baltimore have been the chief competitors. Unfortunately, for only five years of this period can the relative exportation of these two descriptions of flour be given. From 1845 to 1849 the general tendency was toward the relative increase of Baltimore flour.[2] The present period has largely concentrated the manufacture of flour for Brazil at Baltimore.[3]

We possess means of estimating much more accurately the rank of Baltimore as an exporting point for flour.[4] It is in this capacity that Baltimore has achieved its greatest success. New York received the larger part of its flour from the west; this flour has never proved acceptable in Brazil. Richmond, on the other hand, has had no active demand for

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[1]The new Patapsco Extra had secured the place held by the Richmond flour four years before. *Price Current*, annual statement for 1844.

[2]Sales of Baltimore and Richmond flour in Brazil (by barrels):

	1845.	1846.	1847.	1848.	1849.
Baltimore	44,172	55,957	70,046	90,414	83,506
Richmond	86,658	78,395	65,843	62,645	90,402

Hunt, xxii. 666.

[3]See *Commercial Relations*, 1886, 1072.

[4]Flour exported to Brazil in barrels:

	1838	Average 1840 to '44	Average 1846 to '50	1848	1859	1863
From Baltimore	65,555	107,438	108,021	115,628	109,507	153,163
From United States	97,606	180,524	194,781	294,816	491,484	408,820
Percentage from Baltimore to total from United States	67	60	55	39	22	37

Years 1848, 1859, and 1863 are fiscal; others, calendar. Exports of flour from Baltimore for 1863 are not entirely complete. Exports from the United States, 1838 to 1850, taken from *Hunt*, xxiv. 621, and for other years, from reports on *Commerce and Navigation;* exports from Baltimore, 1840 to 1850, from *Price Current*, for other years, compiled from custom-house records at Baltimore.

coffee, and has thus been unfitted to secure and maintain a direct trade in flour. Baltimore was without equal as a point for the exportation of flour to South America. This can easily be shown to be true for the years between 1838 and 1850. In all of these years except 1844 and 1847, Baltimore exported more flour to Brazil than all other ports in this country. From 1848 to 1859, the relative importance of Baltimore declined somewhat. The decline was largely due to the attempt that was made to export flour direct from Richmond to Rio Janeiro; this was done largely on Baltimore account; thus the interest of Baltimore in the trade was even more extensive than the figures indicate. It may be said, in general, that about three-fourths of the flour exported to Brazil from Baltimore was the product of city mills, and that the larger part of the remainder was of Richmond manufacture,[1] amounting perhaps to one-third of the entire export of that description to South America. Baltimore possessed a very extensive interest both in the manufacture and the exportation of flour for Brazil during the entire period.

Western flour did not enter into the exports to Brazil to any considerable extent, either in the period before the war or in the present period. This fact eliminates from our direct study of the Brazilian trade all question concerning transportation from the interior. Indirectly this question enters into our problem, through its influence on the exports to Great Britain, and thus on the direction of Baltimore's exports of flour. But the importance of this question, during the period before the Civil War, is by no means considerable.

Baltimore already gave evidence of the character of its trade during the next period. It proved a better port for flour than for other exports. Through the whole period the proportion of flour to total exports to Brazil was higher in

[1] Said to amount to about 40,000 barrels annually. *Price Current*, annual statement for 1857. DeBow: *Industrial Resources*, iii. 463, 468.

the case of Baltimore than for the United States.[1] Yet the difference was not so marked as it has since become.

Exports from Baltimore to Brazil before the war were carried almost entirely in vessels belonging to the port, regularly engaged in the trade. In 1858 ninety-four per cent. of the exports from Baltimore to Brazil was carried in vessels belonging to the port, four per cent. in other American vessels, and only two per cent. in foreign vessels.[2]

The effect of the Civil War on Baltimore's flour trade with Brazil was marked. The war resulted in the interruption of western communication, owing both to the use of the Baltimore and Ohio for the transportation of troops and its repeated obstruction by the Confederate forces. This affected the export to Great Britain rather than that to Brazil. There seems also to have been a decreased local demand for city flour. The army near Baltimore was supplied from that market, but probably with western flour. Baltimore millers found it necessary to manufacture a special grade of flour for South American markets, and they entered into active competition to satisfy the demands of Brazil.[3]

The war also closed the port of Richmond. Baltimore was so placed as to need an extension of its exports to Brazil, in order to compensate for the decline in its exports to other countries, and probably also a diminished local consumption of city flour; and the extension of its trade was facilitated by the blockade of the port of its chief competitor. The principal results of the war were thus: (1) An increase in the export of flour from Baltimore to Brazil of twenty per

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[1] Proportion of flour to total domestic exports to Brazil, by fiscal years:

	1848.	1859.	1863.
From Baltimore.....	73 per cent.	69 per cent.	87 per cent.
From United States....	63 "	59 "	68 "

[2] Clearances, Baltimore to Brazil, calendar year 1858:

	Vessels.	Tonnage.
Baltimore Vessels.....	56	18,031
Other American Vessels.....	5	918
Foreign Vessels.....	2	686

[3] *Price Current*, annual statements for 1862 to 1864.

cent. over the previous five years, in the face of a marked decrease in the exports to Great Britain and the West Indies, and a general decrease of thirty per cent. From the war to 1884, the export to Brazil remained the largest part of Baltimore's exports of flour. In 1860, Baltimore's share in the exports of flour to Brazil from this country was only thirty-four per cent.; the average from 1861 to 1864 was forty-two per cent.[1] (2) The manufacture of a brand especially adapted to the Brazilian market. This has given Baltimore a great advantage as a competitor for the trade, and has introduced a conservative element into its trade.

A marked change also occurred in the character of the vessels engaged in the trade with Brazil. In 1858, as has been shown, ninety-eight per cent. of the exports was carried in American vessels; in the fiscal year 1863, probably something less than eighty-one per cent.,[2] and in 1867, only seventy-four per cent., was carried in American vessels. The cause of this change, which was to a large extent merely a change of flag and not of vessel, was caused by the fear of Confederate privateers. This change appears more largely in the case of imports, and will be more fully treated below.

Imports.

During the period from 1825 to 1865, the principal commodities imported into Baltimore from the east coast of South America were coffee, hides, and sugar. Coffee was received from Brazil and Venezuela, hides from Uruguay, Argentina, and Brazil, and sugar from Brazil and, during part of the time, from British Guiana. All of these commodities require consideration; but the greatest stress must

[1] Similarly, of flour exported to the Plata, Baltimore's share was 36 per cent. in 1860, and 46 per cent. average from 1861 to 1864.

[2] Returns of exports in foreign vessels for the first quarter of 1863 are missing.

be laid on the trade in coffee. Coffee has been the fundamental and the permanent element in Baltimore's import trade. The history of the coffee trade—the most characteristic branch of the South American trade, and the one representing the greatest value—merits fullest investigation.

The period from 1825 to 1865 brought about a steady and considerable increase in Baltimore's imports from Brazil relative to its total imports from the east coast of South America; and also a general increase in the proportion of coffee to total imports from Brazil.[1] This movement has become more marked in the period since the Civil War.

Before we enter upon the consideration of the coffee trade, it may be well to show briefly the general course of Baltimore's trade in hides and sugar. Prior to the importation of coffee from Brazil to any large extent, Baltimore had received hides to a much greater value than coffee from South America. Hides continued to be imported in increasing quantity after the change in the Brazilian trade; but coffee became, in the early twenties, the principal import into Baltimore. The trade in hides continued to increase until about

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[1]Column (1) gives the proportion of imports into Baltimore from Brazil to total from the east coast of South America; column (2), the proportion of coffee to total imports from Brazil; column (3), the proportion of coffee, and column (4), the proportion of hides, to total imports from the east coast.

Period.	(1) Per Cent.	(2) Per Cent.	(3) Per Cent.	(4) Per Cent.
Year ending Dec. 31, 1823....	32	59	34	22
Year ending Dec. 31, 1827 ...	93	55	52	33
9 Months ending Sept. 30, 1834	58	93	58	29
Year ending Dec. 31, 1838....	75	95	79	11
Year ending June 30, 1848.....	76	89	73	21
Year ending Dec. 31, 1858....	80	94	77	9

The figures for 1827 in the first two columns are misleading. In that year 35 per cent. of the imports from Brazil consisted in hides. due merely to their exportation through Rio Grande instead of Montevideo and Buenos Ayres. In 1834 no hides were imported from Brazil. A more important and natural increase in the importation of hides caused the decrease in columns (2) and (3) for 1848.

1835.[1] The principal part of these hides came from the Plata region, and were exported usually from Montevideo and Buenos Ayres, but sometimes from Rio Grande. The importation of heavy hides diminished considerably the next five or ten years, but again increased in quantity about 1850. The increase was but temporary; the decline which followed brought about the permanent diversion of the trade in the Plata hides to New York and Boston.[2] Baltimore's trade came to be composed more largely of the lighter domestic hides. The period before the Civil War witnessed the beginning of the decline in Baltimore's import trade with Uruguay and Argentina, which has become much more marked in the present period.

The decline in Baltimore's imports of hides from Uruguay was preceded by a decline in the other imports from Uruguay. In the fiscal year 1848, hides constituted fifty-six per cent. of the imports from that country into the United States,

[1] During the first nine months of 1834, hides to the value of $300,735 were imported into Baltimore from South America—of which all but $46,648 came from the east coast.

[2] *Price Current*, annual statements for 1854 and 1855. The table given shows the decline in the number of hides imported into Baltimore from Uruguay and Argentina, and the increase in the number received coastwise. Since 1870 the imports of South American hides at Baltimore have been insignificant.

	Average 1848 to '51	Average 1852 to '55	Average 1856 to '59	Average 1860 to '63
Uruguay and Argentina	93,922	21,264	44,917	22,790
Brazil	61,347	25,706	16,584	3,907
Venezuela	24,781	27,158	12,958	961
Pacific Ports	5,793	10,411	5,222	10,136
Other Foreign	6,032	17,234	11,043	1,362
Total Foreign	191,875	101,773	90,724	39,156
Coastwise	40,848	46,861	136,688	131,188

In the fiscal year 1896 the proportion of the imports from Argentina and Uruguay coming to New York and Boston was as follows:

Countries.	New York. Per Cent.	Boston. Per Cent.
Argentina	55	44
Uruguay	85	13

and ninety-one per cent. of the imports into Baltimore. Baltimore demanded only hides from Uruguay; other ports could receive general cargoes.

An account of Baltimore's trade in sugar would be very instructive. In the sugar trade, two forces are operative which have affected but slightly the trade in other South American products: (1) trust production, and (2) the tariff. The precise effect of these two forces on the localization of industry would be very difficult to estimate, but at the same time the results of the inquiry would be highly valuable. Such a study is outside the limits of this monograph. Coffee comes mainly from South America; but the principal source of sugar has been, not South America, but the West Indies.

Baltimore imported sugar from South America to the value of from thirty to forty thousand dollars annually from the War of 1812 to about 1855. The importance of the sugar trade of Baltimore dates from the erection of two refineries in Baltimore in that year.[1] In the decade between 1848 and 1858, the imports of sugar from South America increased to ten times their former amount.[2] Demand for sugar gave rise to Baltimore's import trade with the Guianas. Ninety-eight per cent. of Baltimore's imports from British and Dutch Guiana consisted in sugar. The subsequent history of the trade with those countries has been determined entirely by the varying success of Baltimore's refining industry. The trade was lost during the Civil War, but regained in 1871, after that industry had been re-established.[3] From

[1] *Price Current*, annual statements for 1855 and 1856.

[2] Imports of sugar into Baltimore during the fiscal year 1848 and the calendar year 1858, compared:

	1847–48.		1858.	
British Guiana.....	.....	.....	4,994,111 lbs.,	$197,219
Dutch Guiana.....	.....	.....	131,972 "	5,888
Brazil.....	806,463 lbs.,	$33,512	3,431,579 "	146,185
Venezuela	33,450 "	1,422	2,428 "	84
Total.....	839,913 lbs.,	$34,934	8,560,090 lbs.,	$349,376

[3] *Journal of Commerce*, annual statement for 1871.

1872 until 1884, and again during the year 1891, the trade of Baltimore with British Guiana was considerable. At other times, the trade has been insignificant.

Coffee.

There has been a tendency, not only for coffee to increase in proportion to total imports from South America, but for the coffee imported to consist more and more largely of Brazilian.

Coffee became the principal import from Brazil about 1820; by 1834, it constituted over ninety per cent. of the imports from that country. Thus at an early period, Baltimore lost, to a considerable extent, its general import trade with Brazil.[1] One leading characteristic of Baltimore as an importing point has been its lack of demand for mixed cargoes. Hence, Baltimore has been most successful in proportion as the article of its demand has been the staple product of a country. Baltimore's restricted demand did not prove detrimental to its trade in coffee from Brazil; for coffee has been sufficient in itself to furnish full cargoes. In other lines of trade, however, the restricted demand of Baltimore has often necessitated partial cargoes, while rival ports, by taking also some general commodities, have secured full cargoes.

The importance of the coffee trade, together with the amount of vested interests involved, has proved another conservative element in this branch of Baltimore's South American trade. Throughout the entire period from 1825 to 1860, coffee was the most successful line of imports which Baltimore possessed. The trade was constantly increas-

[1]The relative importance of Baltimore as a market for coffee and for other Brazilian products may be shown by another comparison. In the fiscal year 1848, Baltimore received 26 per cent. of the Brazilian coffee imported into the United States, but only 8 per cent. of other imports from Brazil.

ing in value. It was conducted on Baltimore account. The coffee was transported mainly in vessels belonging to Baltimore, and regularly employed in the trade. There was a very close connection between the owners of these vessels and the importers of coffee.

There was also an element of stability in the trade because of Baltimore's extensive exports of flour to Brazil. The trade was reciprocal. A cargo each way was assured.

The course of the trade in Venezuelan coffee during this period was in marked contrast with the trade in Brazilian coffee. Baltimore's first imports of coffee came from Venezuela; it was not until after 1820 that the coffee imported from Brazil surpassed that imported from Venezuela. During the next twenty years the coffee trade with the latter country slowly increased; but, from 1840 to 1860, the decline in this trade was marked. The period as a whole, however, witnessed a much more considerable decline in the importation of other Venezuelan products.[1] This exerted a more injurious effect on the importation of Venezuelan coffee than the corresponding phenomenon did on the importation of Brazilian coffee. It seems to be largely accountable for the fact that vessels from Venezuela were usually unable to secure full cargoes.[2] Coffee alone could not furnish a full cargo from Venezuela; it could from Brazil. The relative decline in the import of Venezuelan coffee is marked; in 1823 the quantity of coffee imported from Venezuela was one-half as great as that from Brazil; in 1838, the proportion was one-ninth; and in 1858, less than one-twelfth. The trade was no longer sufficient to justify

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[1] Proportion of coffee to total imports from Venezuela:

	1823.	1827.	1834.	1838.	1848.	1858.
Per cent....	35	25	44	58	51	68

[2] In the fiscal year 1848 the tonnage entering Baltimore from Venezuela was 2,460; the estimated bulk of the imports, 1,402 tons. Vessels entered with cargoes only to 57 per cent. of their capacity. The proportion of cargo to tonnage entering from Brazil was 93 per cent.

Baltimore importers in carrying stocks of Venezuelan coffee. The market was usually bare of that description.[1] Without carrying stocks, the trade lost the regularity necessary to its very existence.

The end of the trade occurred in 1859. That year brought the last regular importation of Venezuelan coffee in any considerable amount. The importations since that time have been irregular and inconsiderable. Down to the Civil War, the trade in coffee was becoming more and more limited to Brazilian coffee; since the war, Brazil has furnished the whole quantity imported by Baltimore.

The comparative imports of Brazilian coffee at the different ports of this country is the subject next to be considered. Data for this inquiry are available only from 1841.[2] Before 1840 Baltimore and New York had been the chief competitors for the coffee trade. Neither had gained any decisive advantage. New York received more coffee than Baltimore, but the excess was small, and Baltimore did not yet admit its inferiority to New York. In 1840 an upward tendency was noted in Baltimore's trade; shipments to the south and southwest had largely increased.[3] The western

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[1] *Price Current*, annual statements for 1843, 1845, and 1855. The irregularity and gradual decline in the imports of Venezuelan coffee into Baltimore may be seen in the following table:

Years.	Bags.	Years.	Bags.	Years.	Bags.
1838.....	11,612	1854.....	20,966	1862.....	350
1847.....	15,852	1855.....	12,565	1863.....	.....
1848.....	25,960	1856.....	17,798	1864.....	4,504
1849.....	23,646	1857.....	4,077	1865.....	.....
1850.....	24,040	1858.....	11,158	1866.....	2,761
1851.....	21,081	1859.....	8,348	1867.....	1,220
1852.....	16,241	1860.....	887	1868	.....
1853.....	12,041	1861.....	.....		

[2] I have used the table in *Hunt*, xxvi. 75, for the years 1841 to 1850; it is taken from a Brazilian source, and hence is compiled only from declared destination. It does not differ materially from the figures in the Baltimore *Price Current*. The *Price Current* gives comparative tables for 1854 and subsequent years.

[3] *Price Current*, September 26, 1840, May 8, 1841. *Cf.* annual statement for 1852.

shipment the next year, however, was smaller, owing to increased importation at New Orleans. Baltimore's trade increased generally during the years from 1841 to 1845. During that period, New York was the principal importing point, New Orleans ranked second, and Baltimore third. But Baltimore received eighty per cent. as much coffee as New York.[1]

The first direct importation of coffee into New Orleans occurred in 1835. Seven years later, it received more coffee from Brazil than any other port in the United States. "Everything now indicates," it was said,[2] "that very nearly, if not the whole of this trade, must very soon be ours." During the entire period from 1846 to 1858, except probably the year 1851, New Orleans maintained first rank as importing point for Rio coffee. The phenomenally rapid growth of the coffee trade of New Orleans at this time was due mainly to its advantageous situation. The chief place of consumption for Rio coffee was in the west. New Orleans was on the natural water route from Rio Janeiro to the west. Comparing the two five-year periods, 1841 to 1845, and 1846 to 1850, the increase of the trade of New Orleans was eighty-one per cent., while the increase of New York was only thirty-one per cent. Baltimore retained its rank as third, but its trade had increased more rapidly than the trade of New York.

New Orleans, however, during the whole of its history, has lacked one great essential to permanent success. It

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[1]Average comparative imports of coffee, by bags, and per cent. increase, for periods of (calendar) years:

	1841 to '45.	1846 to '50.	Increase.	1855 to '59.	Increase.
At Baltimore.....	120,072	164,076	37	213,922	30
At Boston.....	37,069	37,651	2	6,860	*
At New Orleans...	135,514	245,338	81	361,331	47
At New York.....	150,086	195,867	31	340,410	74
At Philadelphia...	28,998	38,872	34	115,442	197
Other (Southern) Ports.....	9,054	25,241	179	57,598	128
Total.....	480,793	707,045	47	1,095,563	55

*Decrease, 81 per cent.

[2]De Bow: *Industrial Resources*, i. 286; see also, ii. 320, iii. 563.

has possessed little export trade. It lacked the flour trade necessary to complete its coffee trade, as Richmond lacked the demand for coffee necessary to the full development of its flour trade. The receipts of flour at New Orleans consisted of the western flour which has proved unacceptable to the Brazilian market. New Orleans possessed no decided advantage in regard to distance from Brazil, because the course of vessels, after passing out of the Gulf, lay considerably to the north before proceeding to Rio Janeiro. The one permanent advantage of New Orleans was its natural water communication with the interior. That advantage came to be greatly lessened by the construction of canals and railroads between the interior and the seaboard.

During the last decade before the war, there was a general increase in the coffee imported into this country; but the increase at New York and Philadelphia was the most marked feature of the period.[1] The year 1859 restored to New York first rank—a position it has ever since maintained. It is important to note that this change in favor of the seaboard as against the Gulf occurred before the outbreak of the war; commercial, not merely political, forces gave the victory to New York over New Orleans. The war merely intensified industrial conditions. Eastern cities had secured artificial communication with the west both by railroad and canal. New York secured western communication earlier than Baltimore, but its route was somewhat longer. With the establishment of communication between the west and the seaboard, the one great advantage of New Orleans was lost.

Baltimore's western communication dates from 1851, the year of the opening of the Chesapeake and Ohio Canal through its entire length. In 1851, Baltimore in all probability imported a greater quantity of Brazilian coffee than any other port in this country; but its pre-eminence was lost

[1]The increase at Philadelphia is important as showing that the victory of New York was a victory for the seaboard.

again the next year.[1] After the opening of the Baltimore and Ohio to Wheeling, the coffee transported west from Baltimore increased very rapidly. That road is said to have offered special inducements for the shipment of coffee; and, in 1858, the claims of Baltimore to a larger share of the trade with the interior were presented.[2] Toward the close of the period, western shipment required much the larger part of the imports at Baltimore.

In general, during the period from 1825 to 1860, the trade of Baltimore in coffee steadily increased. Its increase, however, failed to keep pace with the increase of New York and New Orleans. In the years from 1841 to 1845, Baltimore received twenty-five per cent. of the total imports of Brazilian coffee into the country; in the years from 1855 to 1859, it received only twenty per cent. Its coffee trade, however, was extensive and firmly established by the large vested interests involved. Its communication with the west had been improved, and it shipped thither large quantities of coffee; yet the period, as a whole, had greatly reduced the difficulties of transportation west from the seaboard, and had thus diminished Baltimore's advantage from its greater proximity to the west. The period witnessed the rise of communication with the west by the Mississippi River, and also the relative decline in its importance. The changes in Baltimore's trade were gradual. The principal changes

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[1] Unfortunately, complete figures for the year 1851 are not available. *Hunt*, xxvi. 76, gives the following figures for the first nine months: Baltimore, 197,399 bags; New York, 179,791 bags; New Orleans, 180,296 bags.

The total imports for the year at Baltimore, given in the *Price Current*, are perfectly consistent with this: 266,240 bags, against 150,194 bags in 1850, 224,082 bags in 1852, and 182,338 bags in 1853.

[2] *Price Current*, annual statement for 1858. Western shipments of coffee, by bags, over the Baltimore and Ohio for fiscal years ending September 30, and imports for calendar years, are contrasted. See *Baltimore and Ohio*, annual reports; *Price Current*.

	1849.	1853.	1854.	1855.	1856.	1857.	1858.	1859.	1860.
Import.....	186,173	185,980	200,828	249,080	197,989	208,560	188,019	230,984	181,202
West'n ship't...	10,062	48,539	81,934	95,098	121,684	134,492	139,962	120,792	178,640

during the period were the decline in Baltimore's trade in Venezuelan coffee, and the increased proportion of coffee in Baltimore's imports from Brazil, almost to the exclusion of general imports.

Baltimore possessed the two great essentials for the preservation of its trade: regular means of transportation, and, by virtue of its flour trade, reciprocal commerce. This period was the least successful in the history of the coffee trade of New York; although at the end of the period New York ranked first, it was only first among equals. No concentration of the trade in Brazilian coffee had taken place.

The general effects of the Civil War on the coffee trade were four: (1) A very considerable diminution of the total imports took place, due largely to the higher prices, particularly after the duty of four cents per pound was imposed in August, and five cents in December, 1862. (2) The war closed the southern ports to foreign commerce, and caused at least a suspension of their coffee trade. Trade was thus diverted, which from 1855 to 1859 had formed thirty-eight per cent. of the total imports. (3) Baltimore suffered a marked decrease in its trade in coffee, considered both relatively and absolutely. (4) New York's share of the trade increased largely. The table presented shows the extent to which these influences operated.[1] The last two points must be considered more fully.

Baltimore suffered no direct closing like the southern ports. Yet the indirect effects of the war on its trade were

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[1]Imports of coffee, by bags, for the average of the five calendar years, from 1855 to 1859, for the years 1860 and 1861, separately, and the average from 1862 to 1864:

	1855 to '59.	1860.	1861.	1862 to '64.
At Baltimore	213,922	181,292	137,300	80,972
Boston	6,860	8,000	8,288	3,059
New Orleans	361,331	254,362	141,987	.....
New York	340,410	278,246	530,834	389,413
Philadelphia	115,442	55,827	57,699	12,624
Southern Ports	57,598	81,754	25,760	.....
Total	1,095,563	859,481	901,868	486,068

no less apparent, although, of course, less far-reaching. Baltimore's trade declined fifteen per cent. in 1860, thirty-six per cent. in 1861, and sixty-two per cent. during the remainder of the war, from the level it had reached during the years 1855 to 1859. The Baltimore and Ohio was the main outlet for Baltimore's coffee; that road, as we have seen, was closed to traffic repeatedly during the war. The demand for Baltimore coffee was thus limited almost entirely to local consumption and the wants of the army in the vicinity. During the latter part of the war, the government demand amounted to nearly one-half the total consumption of coffee at Baltimore.[1]

The war seems to have exerted another injurious effect upon the trade of Baltimore. The depredations of Confederate privateers, particularly between this country and Brazil, caused the substitution, to a large extent, of foreign for national vessels in the Brazilian trade. Underwriters in Brazil refused to insure coffee carried in American vessels, except at a discriminating rate.[2] The substitution of foreign vessels was undoubtedly injurious to the trade of Baltimore. Its imports had been carried almost exclusively in sailing vessels belonging to the port. What prejudiced their use was a disadvantage to Baltimore's trade.[3] Baltimore was not in a position to change its method of transportation. As a result, notwithstanding an enormous decline in its entrances during the war, the average proportion of cargo to tonnage also fell.[4] It is noticeable that during the war the foreign clearances for Brazil increased much more rapidly, at least suggesting the thought that

[1] *Price Current*, annual statement for 1864; see also statements for 1861 and 1862.

[2] *Commercial Relations*, 1862, 663, 675; 1863, 609, 616.

[3] During the fiscal years 1856 to 1860, 90 per cent. of the tonnage entering Baltimore was American; during the years 1861 to 1865, the proportion was 88 per cent., and 1866 to 1870, 52 per cent. Since 1885, few foreign vessels have entered Baltimore from Brazil.

[4] From 1855 to 1860, the proportion is estimated at 69 per cent.; from 1862 to 1864, 49 per cent.

many of the vessels carrying coffee to New York took their return cargo from Baltimore. The prosperous condition of its flour trade during the war was doubtless an important factor in Baltimore's maintenance of a regular trade in coffee in the face of these serious obstacles.

The other effect of the Civil War that we must consider is the concentration of the trade at New York. From 1855 to 1859, New York received on the average thirty-one per cent. of the total imports of Brazilian coffee; from 1862 to 1864, its proportion was eighty-one per cent. The question had hitherto been what city should receive the largest imports; the question henceforth was, should one city control the trade. The tendency toward concentration was as yet due to military rather than commercial causes. The communication of New Orleans with Brazil, and of Baltimore with the west, was cut off. Transportation facilities between Brazil and New York were not only maintained, but increased by the more extensive use of foreign vessels, which naturally sought the largest port and the port farthest from the seat of war. New York also kept its communication with the interior open, both by railroad and canal, during the entire period of the war.

The country as a whole, and all parts of it, except New York, lost through the Civil War. New York not only gained relatively, but, in the face of a decline of more than half for the whole country, its absolute gain was considerable for the whole war period. During the war, the import of coffee at New York was nearly five times that at the port ranking second; before 1860 a difference of ten per cent. between the principal port and the port ranking second was unusual. The war amassed sufficient trade at New York to make it beyond question the chief place in the United States for the importation of coffee. The question still to be solved was the extent to which the trade should be concentrated there.

II. Trade with the West Coast.

Exports.

The exports of Baltimore to the west coast of South America may be briefly treated. The opening of the period now under consideration marks the highest point in the history of the exports from Baltimore to those countries. In 1827 the exports to Chile were of considerably more than twice the value of the exports to Brazil. The composition of the exports, however, was entirely different. The chief element in the exports to Brazil was flour, while the chief elements in the exports to Chile were foreign goods re-exported and domestic dry goods.[1] The exports in 1859[2] present a marked contrast to those of 1827. In 1859 the exports to Brazil were nearly six times as great as those to Chile, and more than three times as great as the exports to Chile and Peru combined. The re-export trade had been lost; the trade in domestic dry goods had suffered a large

[1] Exports from Baltimore during the calendar year 1827:

Destination.	Flour.		Domestic Dry Goods.		Re-exports.		Total Exports.
	Value.	Per Cent.	Value.	Per Cent.	Value.	Per Cent.	
Chile	136,657	16	195,251	22	271,818	31	873,453
Peru	42,545	35	37,334	31	31,528	26	120,808
Brazil	274,078	71	19,786	5	28,506	7	386,980

[2] Exports from Baltimore during the fiscal year 1859:

Destination.	Flour.		Domestic Dry Goods.		Re-exports.		Total Exports.
	Value.	Per Cent.	Value.	Per Cent.	Value.	Per Cent.	
Chile	4,400	2	102,173	55	3,022	2	185,771
Peru	2,865	2	59,936	41	4,628	3	147,012
Brazil	730,281	68	135,716	13	16,070	1.5	1,076,177

relative decline, and was finally destroyed by the Civil War. Chilean wheat was able fully to satisfy the demand of the west coast for flour, the one article in which Baltimore possessed a distinct advantage over New York and Europe. Throughout the whole history of the export trade to South America, the tendency has been for Europe to supply directly the demand for dry goods, Baltimore to supply the demand for flour, and New York to ship assorted cargoes. This general tendency accounts for the relative decline of the export trade between Baltimore and the west coast of South America during the period treated in this chapter, and the total loss of the trade in the subsequent period.

Imports.

By far the most important branch of the import trade of Baltimore with the west coast of South America, between 1850 and 1860, was the trade in guano. That trade will be fully considered later. Before its rise, the chief imports were copper and silver. It has been characteristic of the trade with Chile and Peru that the imports consist of some natural deposit, either metal or chemical—silver and gold, platinum, copper, guano, nitrate of soda. Neither agricultural nor manufactured products have been imported to any considerable extent.[1] Copper came principally from Chile, specie from Peru. The extensive importation of the precious metals lasted until about 1840, averaging perhaps two hundred thousand dollars a year. Silver was, throughout the whole period, much more largely imported than gold; until 1838, very little gold was received.

Copper was increasing in amount during the entire period. About 1834 copper first surpassed silver in importance. The increasing relative importance of copper, and the decreasing importance of silver and gold, appears in

[1] See *Hunt*, vi. 62-64.

the table below.[1] At the beginning of the period, nearly half the imports from Chile and Peru consisted of silver and gold; at the close, no specie or bullion was imported. At the beginning, less than one-fifth of the imports consisted of copper; at the close, copper constituted four-fifths of the imports. The decade from 1848 to 1858 marked a decided change in Baltimore's trade in copper. In 1856 the two smelting establishments[2] petitioned the legislature to increase their capital stock. The year 1858 proved a prosperous one in the copper trade. Over a million dollars' worth of the unwrought metal was imported from South America, against five hundred thousand dollars' worth from Cuba and domestic sources combined. In that year eighty per cent. of the imports from Chile consisted of copper.[3] During the Civil War the two companies were consolidated. The Copper Act of 1869[4] prevented the further importation of Chilean copper, and caused the works at Baltimore to be closed. The industry was re-established in 1872, however, to work on domestic ores. Baltimore's present copper smelting in-

[1]Proportion of specie and bullion and of copper to total imports from Chile for 1848 and 1858, and from Chile and Peru for former years:

Year.	Proportion Copper.	Proportion Silver and Gold.
1823	19 per cent.	49 per cent.
1827	32 "	53 "
1834 (9 months)	47 "	39 "
1838	41 "	34 "
1847–'48	52 "	0.2 "
1858	80 "	.... "

[2]The Baltimore Copper Smelting Company, situated at Canton, incorporated in 1850, and the Baltimore and Cuba Smelting and Mining Company, at Locust Point, incorporated in 1845. Maryland *Senate Journal*, 1856, 54, 58, 65. Baltimore *Price Current*, annual statements for 1858 and 1860. *Exposition of the Baltimore and Cuba Smelting Company*, 1845.

[3]Valued in the entries at $376,345.

[4]Taussig: *Tariff History*, 219-221. The present company is the Baltimore Copper Smelting and Rolling Company, at Canton; it now yields a much larger product of copper for casting than any other establishment in the country. *Board of Trade*, Report, 1896, 32.

dustry thus owes its origin to Baltimore's South American trade before the Civil War.

Baltimore secured some little trade with Ecuador from about 1838 to the outbreak of the war. The chief articles of importation were straw hats, bark, and cocoa. The imports were inconsiderable in amount, were usually warehoused, and largely either transhipped or re-exported. Ecuador, moreover, exerted no strong demand for goods from Baltimore. Baltimore's import trade was mainly that of carriage, and proved only transient. Since the Civil War, Baltimore has had no further trade with Ecuador.

Guano.

Guano was the first commercial fertilizer employed in this country to any large extent. It thus marks an important change in agricultural methods—the end of the period of entire dependence on crude substances produced on the farm. The more careful fertilization of land, demanded alike by theoretical study and practical farming, was rendered possible by the use of a substance capable of bearing the costs of transportation.[1]

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[1]The introduction of commercial fertilizers has an important theoretical as well as practical interest. Carey's principal argument in favor of protection was based on the necessity of returning to the soil those properties which have been transferred to the crop. Manure is a substance too bulky to admit of transportation to any considerable distance. Carey maintained, therefore, that the export of agricultural produce meant the impoverishment of the soil. *Social Science*, i. 145, 274.

The use of commercial fertilizers has taken away the special force of Carey's argument; it has become merely a particular case of his second argument in favor of protection, as a means of saving cost of transportation. It is to be noted that Carey made reference to guano, with no thought of the effect that the movement, begun by the importation of guano, would have upon his system. Guano seemed to Carey an expense to be avoided; he did not see that it might lead to a greater saving of expense. *Ibid.*, i. 276, iii. 128 note.

Owing to the more intensive cultivation in England, the importa-

A special interest thus attaches to the introduction of guano into the United States. The guano first imported, and incomparably the favorite variety down to the Civil War, was the Peruvian; and as Peruvian guano dominated the field of fertilizers, so Baltimore was the leading market for that article. The introduction of guano, and its most extensive importation, thus took place at the port which was the best distributing centre for the south—the section which, Carey said, possessed soil most in need of renovation.[1]

To understand the guano trade of Baltimore, it is necessary to give a general view of the system under which Peruvian guano was sold.

The trade in Peruvian guano has always been subject to a government monopoly.[2] The deposits are found in uninhabited portions of the mainland and the islands off the coast of Peru. Consequently ownership in the deposits vests in the government. Down to the Civil War, the exports were shipped exclusively from the Chincha Islands.

The system under which guano was exported may be called the system of consignment. The government retained ownership of the deposits, but contracted, in return for a consideration, to consign all guano exported to one house, and to pay the consignees a commission out of the proceeds from the sales. There was thus both an element of public and of private interest in the sale of guano. In order to introduce the article into commerce, large capital and enterprise were essential. The consignees furnished the initial expenses necessary, and their extensive business connections were important means of advertising

tion of fertilizers began there somewhat earlier than in this country. This fact probably accounts for Mill's refutation of Carey's argument in 1848. *Principles of Political Economy*, book v., chap. x., § 1, p. 557 note (People's edition.)

[1] *Social Science*, i. 83.

[2] The best information concerning the general trade in Peruvian guano is to be found in *House Report*, No. 347, 33d Cong. 1st sess., and *Senate Executive Document*, No. 25, 35th Cong. 2d sess. In the latter document, p. 71, is given a list of the various consignees. A general account of the trade, based on these sources, is given in *Commercial Relations*, 1856, i. 699-710.

the new fertilizer. Sale or lease of the deposits to a private house was, however, entirely impracticable. The return was so uncertain as to render the sale of the deposits for anything like their true value out of the question. The government bore the risk and received the profits; the active interest of the consignees was secured by making their returns proportionate to the value of the guano sold, and by giving them a monopoly of the trade.

The consideration given by the consignees consisted usually in a loan upon security of the shipments of guano. The amount of the loan, the rate of interest, the duration of the contract, the amount of guano to be exported within that time, the markets to which it might be shipped, and the rate of commission, varied with each contract. The government obtained better terms as the trade became more firmly established. In the last contract before the Civil War, that of 1857, the rate of interest was fixed at five per cent., and the commission at three per cent., while the consignees agreed in addition to pay five per cent. interest on all balances due to the government remaining in their possession.[1]

During the period from 1840 to the Civil War, guano was imported into the United States under contracts with three houses. From 1840 to 1851, all guano exported from Peru was consigned to Gibbs and Company, of London. From 1851 to 1857, Felipe Barreda and Brother, and from 1858 to 1861, Zaracondequi and Company, were sole consignees for the United States.[2]

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[1]Objections to the system of consignment came from consumers rather than the government; these will be considered later. At various times the system of sale at the deposits was advocated by certain members of the Convention as a remedy against the mismanagement of which the consignees were accused. In 1857 a revolutionary chief, Vivanco, held the Chincha Islands for several months; during that time only was guano sold at the deposits.

[2]The American agents under these contracts were, respectively, Samuel K. George, Baltimore, and Edwin Bartlett, New York; F. Barreda and Brother, Baltimore, until 1856, and later New York, and T. W. Riley, New York; and Barril and Mur, New York and Baltimore.

Probably the first guano received in this country was a small lot brought into Baltimore in 1824.[1] The incident led to no practical results. It was not until 1844 that any further importation took place. Guano had been introduced into England between 1840 and 1844. In the latter year the English market was temporarily overstocked;[2] it was doubtless this fact that led the English consignees to introduce Peruvian guano into the United States. An agent was appointed in Baltimore, and in July, 1844, the first regular importation of Peruvian guano into this country on government account took place at Baltimore.[3] A few months later a New York agent was also appointed. Baltimore's priority in securing an agency and in receiving guano was doubtless due largely to its previous extensive trade with the west coast of South America. The article, moreover, was already in demand near Baltimore; earlier importations on private account, although small in quantity, prove this. The need of such an article in that section is also indicated by the publication, in the Baltimore *Price Current*,[4] of several extracts concerning guano. Guano was first brought into practical use in Maryland.[5] The need of a powerful fertilizer to renovate the worn-out tobacco lands of Maryland and the neighboring States was

[1] Described in the *American Farmer*, of December 24, 1824, vol. vi., 316-317.

[2] Owing to free importation from an unclaimed island off the coast of Africa. *Hunt*, xxxiii. 366.

[3] Earlier in the year two small lots were imported at Baltimore, probably on private account, and for purposes of experiment.

[4] Issues of June 29, July 6, August 17, September 14, December 14, 1844, and January 11 and 25, 1845.

[5] A pamphlet, issued as an advertisement by the Baltimore agent in the fall of 1844, *Peruvian and Bolivian Guano*, contains five American testimonials of which four are from Maryland farmers, and the fifth, of Mr. I. E. Teschemacher of Boston, is that of a scientific investigator. Two pamphlets were issued in New York in 1845, but contained no new American testimonials; it seemed difficult to introduce guano in the north. Accounts of early experiments in Maryland appeared in the *American Farmer*, new series, vol. i., 1845-1846.

strongly felt; the ammoniac properties of Peruvian guano were peculiarly suited to those lands. Extravagant hopes were built upon the new fertilizer.[1]

Through the entire period, the centre of demand for guano was in the south.[2] Until 1852 the south was supplied almost entirely from Baltimore; in that year direct importation into Norfolk and Alexandria first took place.[3] Baltimore continued, however, to control a very large part of the trade. The use of guano even extended into the Gulf States.[4]

The guano first imported into Baltimore was sold to farmers in small lots. One great advantage claimed by the

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[1]GUANO.—"And here begins another revolution—a revolution in *agriculture* . . . —and all the old worn-out tobacco lands in Maryland and Virginia, the sand hills along the sea coast of Virginia and North Carolina . . . . —all these will . . . become converted to the most arable and productive soils of the country. . . . In effect, this article, *Guano*, will transfer the Western lands to the Atlantic!" *Price Current*, September 14, 1844. The *American Farmer* also contained a great deal of matter on guano, and the best methods of its application.

[2]In 1852, the Peruvian agents published at New York a treatise on *Guano*, by Solon Robinson. This attempt to extend the use of guano in the north really shows the preponderance of the southern demand. Testimonials from Virginia occupy 11 pages, Maryland 9, North Carolina and Delaware 2 each, Pennsylvania and New Jersey only 1 each, Long Island 2, and Massachusetts 5. In a revised edition, additional testimonials from Long Island are given.

[3]*Price Current*, annual statement for 1852. From 1844 to 1851, about 38,000 tons, value over $1,500,000, out of a total of 66,000 tons, were imported at Baltimore.

The imports of guano into Baltimore from Peru, in tons, by calendar years, from 1844 to 1870, except 1854, were as follows:

1844..... 445	1852.....25,500	1861.....27,424
1845.....	1853.....32,152	1862 to 1865.. .....
1846..... 1,170	1855.....31,316	1866.....13,000
1847..... 1,112	1856.....15,728	1867..... 30,175
1848..... 890	1857..... ..15,822	1868..... 1,700
1849..... 2,700	1858..... 8,473	1869..... 7,425
1850..... 6,800	1859.....39,194	1870.....41,243
1851.....25,000	1860.....54,134	

[4]De Bow's *Commercial Review*, xiii. 627-630.

agents for the monopoly in guano, was that it brought about direct sale from producer to consumer, and thus guaranteed the quality of the article and saved the profits of the dealer. The failure of the agent to keep an ample supply of guano always on hand lost this advantage. From 1848 until 1852, the end of Gibbs' agency, practically no stock was held in the hands of the local agent at Baltimore. The demand was continually greater than the supply. Local dealers instituted the practice of buying up cargoes on arrival, often before arrival, and thus maintained a monopoly of the local supply and raised the retail price. Special complaint was brought against the Baltimore agent for encouraging the practice.[1] But the fault lay with the system of sale at fixed prices, and the limitation of the supply to keep up prices. The Baltimore market was often entirely bare of guano, both in agents' and dealers' hands.

Barreda, on assuming the agency, promised to break up the monopoly on the part of dealers by keeping the market better supplied, and by selling in small lots. His promise immediately caused a fall of three dollars per ton in dealers' prices.[2] He also held out the hope of reduced prices; but in neither case was his promise consistently kept.[3] Only in the years 1854 and 1855 was the supply sufficient. Prices, moreover, were raised from $46.20 in 1852, to $65 in 1857, notwithstanding decreased freight charges.

There were many complaints against the methods of the agents, especially from Maryland, Virginia, and Delaware.[4]

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[1] *House Report*, No. 347, 29.

[2] From $50 to $47 per short ton; agent's price, $46.20 per long ton. *Price Current*, October 23, 1852.

[3] The next year, 1853, four times the actual supply could easily have been taken. *Price Current*, annual statement for 1853.

[4] A petition of 2000 citizens of Delaware led to the Biddle Report, (*House Report*, No. 347, 33d Cong. 1st sess.,) recommending a discriminating duty on Peruvian guano, progressive in rate, as the price rose above $40 per ton. *De Bow*, xviii. 33-35. See also *Hunt*, xxxvii. 574.

Either sale of guano at the islands at a fixed price, or purchase of the islands by the United States, was advocated. The Maryland Agricultural Society emphasized the importance of guano in the "renovation . . . of our worn-out soils, which has been conclusively proved by its extensive use, more particularly in the States of Delaware, Maryland, and Virginia,"[1] and urged the government to obtain, as far as possible, the removal of restraints on the trade. In 1854 another committee was appointed to urge the government to remedy the abuses of the Peruvian system.[2] In the legislature of Maryland resolutions were introduced in 1852, which, however, failed to pass until 1854, petitioning the government to adopt some measures "by which the present monopoly in the sale of guano in this State and other States of the Union may be removed and the agricultural interests of our country thereby greatly promoted."[3]

As early as 1846, the legislature of Maryland deemed it necessary to provide for the inspection of guano imported into Baltimore; in 1852 a bill to provide a more efficient inspection of guano was introduced, but not passed until 1854. Under the first law the charge for inspection was forty cents per ton, of which one-half was added to the price of the guano, while the other one-half was considered an offset to the cost of weighing which would otherwise have been necessary. Twenty cents thus constituted the differential charge against Baltimore.[4] The bill adopted in 1854 reduced the charge

[1] *House Report*, No. 347, 21. Communication of May 30, 1850.

[2] *Senate Executive Document*, No. 25, 25-32.

[3] *Senate Miscellaneous Document*, No. 18, 33d Cong., 1st sess.

[4] After the reduction of the charge, the importers ceased to add the inspection fee to the price. *Report of Inspector of Guano*, 1856, Md. Sen. Doc. I., 17. In 1852 the Board of Trade, in a remonstrance to the Senate of Maryland, maintained that this tax would drive the trade from Baltimore to some other port. *Report* for 1852.

[5] Printed in *Hunt*, xxxi. 232-233, and, together with other inspection laws, in *Board of Trade*, Report for 1858, 30-31. See also *Hunt*, xxxiv. 447.

to thirty cents.[5] All guano landed in Baltimore must be inspected and marked according to a fixed scale, with a heavy penalty for failing to have guano inspected and for forging the inspector's mark. The law for the inspection of guano was part of the general system of inspection required in Maryland—inspection was also provided for flour, grain, beef, pork, tobacco, leather, lumber, coal, etc.

In 1854 the market in this country was overstocked with Peruvian guano for the first time. The reason was not the desire fully to supply the demand, but an attempt on the part of the agents, by amassing a large stock of guano here, to secure a better position to claim a renewal of their contract. Guano was imported far beyond the needs of the trade. The effect of this policy was the shifting of the principal place of importation from Baltimore to New York. Baltimore's pre-eminence had been due to its extensive demand for consumption. But the inspection law rendered it impracticable to store guano there. All guano *landed* was subject to the charge of inspection. This seems to have been the principal cause of the diversion of the trade to New York. But the diversion was rendered easy because Baltimore lacked two elements of stability: (1) it possessed little export trade to Peru; and (2) transportation between Peru and Baltimore was mainly by means of transient vessels belonging to other ports. Vessels for the importation of guano were of greater capacity than Baltimore's export trade with South America required.[1] The accumulation of the stock at New York led to the removal of the principal agency there in 1856.[2] And that, in turn, led the agents to favor New York as the point for direct importation. From the fall of 1856 to the end of Barreda's agency, probably the larger part of the imports at Balti-

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[1] In 1853, 44 vessels, and, in 1856, 20 vessels entered Baltimore from Peru. Of these, 7 cleared for Peru or Chile, 7 for other South American countries, and 50 for other places.

[2] *Price Current*, August 30, 1856; annual statement, 1856.

more were indirect.[1] This favored local dealers at the expense of consumers, since sales from the agents became to a greater extent limited to sales by the cargo.

The high price of Peruvian guano was not merely a source of complaint; it also led to the introduction of other guanos. Between 1851 and 1860 the guano imported from other places than Peru increased tenfold. In 1848 Patagonian guano was introduced; but it met with little demand. From 1854 to 1858, Colombian, Caribbean or Venezuelan, Mexican, West Indian, Californian, and Navassa were introduced. The search for new deposits was encouraged by the United States. Any citizen discovering unclaimed islands or keys containing deposits of guano was granted possession, and importation from such islands and keys was assimilated to the coasting trade.[2] The most important of the islands subject to this rule was Navassa, the certificate for which was granted to Mr. E. K. Cooper, of Baltimore. A combination of phosphatic with the more powerful Peruvian guano, known as manipulated guano, was found very successful, as well as much cheaper. This expedient allowed Peruvian to be economized, but did not provide a substitute for it.

It has been shown that the inspection law was instrumental in diverting the trade in Peruvian guano from Baltimore to New York during the years 1854 to 1858. The general effect of the law was to favor other guanos than Peruvian. Phosphatic guanos were much more variable in quality and were less known than Peruvian. State in-

[1]Imports at Baltimore for the calendar years 1856 and 1857, according to the Price Current, were 29,689 tons. Guano inspected, March 1, 1856 to January 29, 1858, 53,694 tons. *Report of Inspector of Guano*, Md. House Doc. I., 1858. This period includes some months, while the agency was still at Baltimore; imports, however, are in tons register, about one-third greater than tons weight.

The decline in importations of Peruvian guano at Baltimore is marked: average, 1851 to '53, 27,551 tons; 1855, 31,316 tons; average, 1856-'57, 14,845 tons; 1858, 8,473 tons.

[2]Act of August 18, 1856. *Hunt*, xli. 476-477, xliv. 784-785.

spection determined their commercial value. It was said that, for the benefit of the inspection law, one dollar more per ton would be paid in Baltimore than elsewhere.[1] But in the case of Peruvian, the inspector himself admitted that the law was useless.[2] The signature of the agent was sufficient guarantee of its quality.

The shipments under the new contract began in 1858. The agents at Baltimore promised to keep the port well supplied with guano. By favoring Baltimore again instead of New York, they merely recognized natural forces; the diversion of the trade to New York had been abnormal. Baltimore still remained the best guano market in the country. But its trade in phosphatic guano had increased much more rapidly than in Peruvian. High price and insufficient supply of Peruvian had combined with the inspection law to promote the trade in other guanos.[3] In view of the decreased demand at Baltimore, the agents imported too largely, and accumulated an increasing stock, which amounted to forty thousand tons at the close of 1861. Upon the outbreak of the war, communication with the south was interrupted; with decreased demand, prices were raised, and thus Maryland demand also became inconsiderable. The war caused the cessation of the trade, because it isolated the section of greatest demand for guano. In 1862 and 1863, the stock of guano collected at Baltimore was shipped to Great Britain and Spain, and in the latter year the agency was closed.[4]

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[1] *Report of the Inspector of Guano*, 1856, p. 11-12.

[2] *Ibid.*, 5, 9. The uniformity in the quality of Peruvian guano is shown by statistics of the inspections. For March 1, 1856, to January 29, 1858, 53,694 tons of Peruvian were inspected; 52,688 tons were of the highest grade (A). *Ibid.*, 1858.

[3] In the *American Farmer*, new series, vol. xiii., for 1857-'58, no less than 38 articles appeared relating to guano. Complaints were still made against the Peruvian monopolists; the quality of Peruvian guano was thought to be declining; the effects of its continued use were considered injurious; and the combination of phosphatic with Peruvian guano was strongly urged.

[4] *Price Current*, annual statements for 1862 and 1863.

With the cessation of the imports of Peruvian guano at Baltimore, the shipments to the United States entirely ceased.[1]

The period before the Civil War was the period of Peruvian guano *par excellence*. The same period is marked by the pre-eminence of Baltimore, both as importing and distributing point for guano. During the seventeen years from the introduction of guano into this country at Baltimore to the Civil War, the imports of Peruvian guano into that city reached over sixteen million dollars in value, and during the decade, from 1852 to 1861, their value was over fourteen million dollars.[2] From the introduction of guano to the Civil War, with the exception of the years 1854 to 1858, Baltimore probably imported more largely than any other port in the country, and even in those years it distributed for immediate consumption more largely than any other city.

The importance of guano to the agricultural interests of Maryland appears clearly from the complaints of the State Agricultural Society against the methods of the Peruvian agents and its demand for more ample supplies, the resolutions of the legislature, and the State inspection laws adopted to regulate the trade.

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[1] *Commercial Relations*, 1862, 692-693; 1863, 631.

[2] Guano is greatly undervalued in the reports on *Commerce and Navigation* until 1867. The article was free, and hence no strong effort was made to secure accuracy. The cost of the guano was placed merely at the expense of loading, from $1.50 to $2 per ton, although the government fixed prices so as to clear about $15 per ton.

CHAPTER III.

FROM THE CLOSE OF THE CIVIL WAR TO THE PRESENT TIME.

I. Trade with the East Coast.

Exports.

Since the Civil War, the trade of Baltimore with Brazil has largely increased, but it has ceased to form the principal part of Baltimore's exports of flour. It is convenient, in describing the changes that have occurred since 1865, to sub-divide the period into three parts: (1) From 1865 to 1874. During this time, the Brazilian trade in flour from Baltimore was increasing both relatively and absolutely. (2) From 1875 to 1884. During this decade, the flour exported to Brazil remained almost constant, while the export to Great Britain was steadily increasing. (3) From 1885 to the present time. During this period, Great Britain has become the principal importer of flour from Baltimore. The flour trade has become primarily European, and not, as before 1885, primarily South American.

(1) From 1865 to 1874. It has been shown, in the previous chapter, that the Civil War acted as a stimulus to the Brazilian trade of Baltimore. The years immediately succeeding the war, however, witnessed a considerable decrease in the trade, due both to poor harvests in Maryland and Virginia and, at times, to insufficient water in the streams. This deficiency in the production of Baltimore flour rendered necessary the substitution of western flour, itself by no means abundant, to satisfy the domestic demand. The trade to Great Britain was thus also diminished—to a much

greater extent, indeed, than the export to Brazil, because the demand was by no means so strong and uniform. During the years 1865 to 1868, the export to Great Britain became insignificant. The export to Brazil, although it declined considerably during these years, maintained well the high relative importance it had secured during the war.[1]

During the latter part of the decade, the export of flour to Brazil increased very rapidly, both relatively and absolutely. The crops proved excellent. Steam was substituted for water power in the larger mills, and thus one element of uncertainty was removed.[2] The export to Great Britain increased over the years 1865 to 1869, but was still unimpor-

[1]Exports of flour from Baltimore, by barrels:

Destination.	Average 1861 to '64.	Average 1865 to '69.	Average 1870 to '74.	Average 1875 to '79.	Average 1880 to '84.	Average 1885 to '87.
Brazil	129,895	115,248	229,171	283,702	243,813	312,843
Uruguay	10,881	3,459	9,382	2,816	.....	.....
Venezuela	726	.....	.....	.....	.....	.....
Great Britain	38,475	12,153	41,436	64,389	136,688	1,487,751
West Indies	70,280	79,665	94,235	100,112	56,329	27,291
Other Countries	28,828	21,795	17,560	6,405	13,102	39,392
Total	279,085	232,320	391,784	457,424	449,932	1,867,277

Proportion of total exports of flour from Baltimore destined—

	For Brazil.	For Great Britain.
1861 to 1864	47 per cent.	14 per cent.
1865 to 1869	50 "	5 "
1870 to 1874	58 "	11 "
1875 to 1879	62 "	14 "
1880 to 1884	54 "	30 "
1885 to 1887	17 "	80 "

[2]*Price Current*, annual statement for 1872; *cf.* statement for 1853. The compulsory feature of the inspection law came to an end in 1872. For some time after this, western flour continued to be inspected, but not the product of city mills, indicating that at best the system was felt to be unnecessary by city millers, whose brand guaranteed the quality. Note the complaint of the Board of Trade against the only remaining part of the system, the inspection of tobacco, in 1880: "State inspections are not only useless, but mischievous." *Report*, 1880, pp. 18-19.

tant. The export to Uruguay had almost ceased; the irregularity of the shipments indicate that the demand of Uruguay only appeared during years of scarcity in Argentina.[1] Baltimore's exports to Venezuela came to an end during the war.

The decade from 1865 to 1874 is marked by the very large increase in Baltimore's export of flour to Brazil. That branch of the flour trade had become more firmly established, and the greater steadiness in its volume was still clearly marked. At the close of the period, the export to Brazil formed seventy per cent. of Baltimore's total exports of flour.

(2) From 1875 to 1884. This was a period of transition in the history of Baltimore's flour trade. During this decade, Brazil remained by far the largest importer of flour from Baltimore. From 1875 to 1879 the proportion of the exports of flour destined for Brazil increased, and during the next five years still formed more than one-half of the total exports. During the decade as a whole, the export to Brazil increased over the preceding decade; nevertheless, in 1884, the quantity of flour exported was considerably less than in 1875; altogether, the years 1875 to 1884 may be considered a stationary period in the Brazilian trade.

A marked feature of the period was the rapid increase in the flour exported to Great Britain. In 1874 the Baltimore and Ohio secured its Chicago connection. From that time Baltimore's receipts of western flour and its exports to Great Britain largely increased. In 1877 the system of differentials was instituted.[2] The effect of the system at first

[1] Similarly Chilean flour has almost entirely taken the place of American on the west coast of South America since about 1830, and completely since the Civil War.

[2] By the terms of this system, adopted as a compromise between the demand of New York to have rates based upon cost, and of Baltimore to have rates based upon distance, Baltimore is allowed a rate of 3 cents per 100 pounds less than New York. The differential is of greatest importance in the case of goods of little value in

seems to have been advantageous to Baltimore as a shipping point for flour. After 1877 the exports to Great Britain from that city increased considerably, and were lowest in the year 1881, in which the system was temporarily abrogated. In 1875 the proportion of the exports of flour from Baltimore destined for Great Britain was nine per cent.; in 1884 it was forty per cent. This rapid increase had occurred while the export to Brazil remained stationary. In 1875 the export to Great Britain was only equal to fourteen per cent. of the export to Brazil; in 1884 it was eighty per cent. of export to Brazil. The relative importance of Great Britain as an importer of flour from Baltimore had thus increased to a very remarkable degree.[1]

(3) From 1885 to the present time. The year 1885 marks a fundamental change in the character of Baltimore's export trade in flour. From 1859 to 1884, Brazil was the largest importer of flour from Baltimore; since that time, Great Britain has taken the largest quantity. Before 1885, Baltimore's trade was principally South American. From that year it has been principally European. From 1884 to 1887 the increase in the export of flour from Baltimore to Great Britain was remarkable. Comparing the fiscal years 1887 and 1888 with 1883 and 1884, we find that the exports of flour from Baltimore had increased enormously, while the total exports of flour to Great Britain and the total exports of flour from

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proportion to weight. Thus, at present, it attracts grain rather than flour to Baltimore for shipment abroad. The general effect of the system on the commerce of Baltimore deserves careful study. It would seem that at first the system secured a certainty in the rate to Baltimore that enabled the beginning of a foreign trade through that port to spring up.

[1] A rapid decline in the flour trade with the West Indies occurred during the latter part of this period. The decline was to some extent the result of the increased importance of western flour during this period, but more largely the result of the loss of the sugar trade. It is to be noted that the total exports decreased much more largely than the export of flour. The relative advantage of Baltimore as a flour market thus clearly appears.

New York had remained almost constant.[1] This relative increase in Baltimore's exports was due almost entirely to the increase in its trade with Great Britain. That element in its flour trade had increased from forty per cent. of the whole in 1884 (calendar year), to seventy-two per cent. in 1885, and eighty-five per cent. in 1887.[2]

This is the element directly affected by conditions of shipment from the west. During these years, the movement of western flour to Europe by way of Baltimore attracted general attention.[3] The phenomenon seems due mainly to the railroad war of 1884 and 1885. By the time that war broke out, Baltimore had secured sufficient trade in western flour to enable it to compete strongly for an increased share in the shipments to Europe. The differential allowed still gave New York a slight advantage over Baltimore. The reduced rates offered by the Baltimore and Ohio during the rate war gave Baltimore a much greater differential.[4]

The increase in the shipment to Europe has by no means decreased the export to Brazil. The European trade is

[1]Exports of flour, with percentages, taking the figures for 1883 and 1884 as base:

Fiscal Years.	Total to Great Britain.			Total from Baltimore.			Total from New York.		
	Barrels.	Per Ct.	Value.	Barrels.	Per Ct.	Value.	Barrels.	Per Ct.	Value.
1883, 1884...	11,301,272	100	67,016,900	875,115	100	5,010,495	8,426,752	100	47,691,001
1885, 1886...	11,722,220	104	57,697,911	1,950,357	223	9,695,757	7,399,967	88	34,268,754
1887, 1888...	15,702,551	131	72,726,141	5,554,898	635	27,717,702	8,401,614	100	35,700,723

[2]Exports of flour from Baltimore to Holland and Bremen show a similar increase:

	1884.	1887.
Holland	5,898 barrels.	161,676 barrels.
Bremen	5,365 barrels.	14,046 barrels.

[3]Baltimore *Journal of Commerce*, January 8, 1887. The increase of through shipments from the west to Europe was a ground of complaint. Baltimore *Corn and Flour Exchange*, Report, 1885, p. 11; 1886, p. 13, etc.

[4]*Corn and Flour Exchange*, Report, 1885, p. 12; 1886, p. 14.

concerned with western flour; the South American, with Baltimore flour. These two branches of the export trade in flour are thus largely independent. The export of flour to Brazil has not only held its own, but has increased very considerably. In absolute quantity it increased more largely from 1884 to 1893 than from 1864 to 1874, the decade marked by its most rapid relative increase; and the export of flour to Brazil has increased much more rapidly from Baltimore than from the country as a whole.[1] The trade in Baltimore flour has remained unchanged; Brazil receives a larger amount of that description, both absolutely and relatively, than ever before. A new trade, in western flour for Europe, of still greater proportions, has been added.

The export of flour to other South American countries than Brazil has become inconsiderable. Flour is still exported regularly to Colombia from Baltimore, but in smaller quantity than bituminous coal.[2] Much larger quantities of flour were shipped to British Guiana until the last few years. In 1893 Baltimore exported more goods to British Guiana than to Argentina, Chile, Colombia, or Venezuela, to all of which the United States exported more extensively than to British Guiana. Two facts are to be noted in regard to the exports to that country. First, flour constituted a larger element than in the export trade with these other countries;

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[1] Export of flour to Brazil from Baltimore, the quantity for 1884 serving as base: in 1887, 173 per cent.; in the fiscal year 1893, 190 per cent. From the United States, average fiscal years 1884 and 1885 serving as base: average 1887 and 1888, 101 per cent.; 1893, 127 per cent.

[2] Baltimore's share of the domestic exports to Colombia in 1892 was less than 1 per cent., and in 1893 less than ½ per cent. Of domestic exports to Colombia—

	From Baltimore		From the United States	
	1892.	1893.	1892.	1893.
Flour	6 per ct.	4 per ct.	12 per ct.	11 per ct.
Bituminous Coal	40 "	2 "	3 "	
Carried in Steamers			90 "	91 "

and, second, a smaller proportion was carried in steamers.[1] Yet even to British Guiana Baltimore sent only five per cent. of the total exports from this country in 1892, and three per cent. in 1893. The loss of the sugar trade after 1891 finally caused the loss of Baltimore's export trade to that country.

Thus far our main inquiry has been the destination of Baltimore's exports of flour. It is now necessary to consider more carefully the trade with Brazil, its importance relative to the general trade with South America, and the shares in that trade which various ports in this country have secured.

A very marked characteristic of Baltimore's export trade since the Civil War has been the decline of the trade with all South American countries except Brazil. A comparison between the fiscal years 1859 and 1893 shows this decline.

Domestic Exports.	1859.	1893.
To Brazil	1,060,107	2,162,538
Other South American Countries	1,011,174	76,463
Total	2,071,281	2,239,001

From this table it appears that Baltimore has lost its export trade with all South American countries except Brazil. In 1859, Brazil received only fifty-one per cent. of the total exports; in 1893, ninety-seven per cent. The exports to Brazil have more than doubled; the exports to other South American countries have fallen to eight per cent. of their former amount. The table below shows the progress of this movement from 1869 to 1896:

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[1] Proportion of flour and of goods carried in steamers to total domestic exports to British Guiana:

	From Baltimore		From United States	
	1892.	1893.	1892.	1893.
Proportion of Flour	71 per ct.	60 per ct.	39 per ct.	36 per ct.
" in Steamers	.. ..	.. ..	11 "	21 "

Exports, of domestic and foreign goods, from Baltimore.

Destination.	Average 1860-'70.	Average 1871 to '75.	Average 1876 to '80.	Average 1881 to '85.	Average 1886 to '90.	Average 1891 to '95.	1896.
Argentina—							
Domestic	146,085	82,327	.....	.....	71,029	1,716	6,500
Foreign	7,618	1,641	.....	.....	.....	.....	.....
Brazil—							
Domestic	1,291,197	2,106,757	2,417,397	1,751,998	2,228,604	2,838,069	2,751,884
Foreign	.....	66	536	6	485	351	.....
British Guiana—							
Domestic	.....	353,290	583,740	438,256	160,604	46,572	.....
Foreign	.....	4,913	13,961	6,198	2,151	486	.....
Chile—							
Domestic	13,600	5,698	.....	.....	.....	.....	.....
Foreign	18,346	.....	.....	.....	.....	.....	.....
Colombia—							
Domestic	29,786	57,130	71,880	56,570	46,270	28,218	34,099
Foreign	874	1,867	2,086	1,523	1,261	1,147	505
Uruguay—							
Domestic	148,300	154,075	51,352	14,977	2,132	3,312	7,810
Foreign	41,922	1,212	1,636	314	.....	.....	.....
Venezuela—							
Domestic	306	95	385	.....	498	1,825	1,084
Total—							
Domestic	1,629,274	2,759,372	3,124,754	2,261,801	2,509,137	2,919,712	2,801,377
Foreign	68,760	9,199	18,189	8,041	3,897	1,984	505

It thus appears that the share of Brazil in the South American trade of Baltimore has enormously increased. The content of the export trade to Brazil must now be considered. Flour has remained the principal export. The bulk of the flour exported to Brazil from Baltimore has consisted of the extra grades of city production especially manufactured to meet the requirements of the Brazilian market. During the years of scarcity of city flour, from 1865 to 1868, Richmond and even western flour were to some extent substituted for the Baltimore brands.[1] Baltimore flour soon regained its former position; but for some years later Richmond flour remained a regular constituent of the exports from Baltimore. Between 1869 and 1878, the amount of this Richmond flour exported to Brazil through Baltimore in transit increased from about twenty-five thousand barrels to sixty-four thou-

[1] *Price Current*, annual statement for 1868.

sand barrels. In the latter year, it formed seventeen per cent. of the exports from Baltimore. The figures showing the descriptions of flour imported into Brazil in 1885 prove that the Baltimore brands were the most favored.[1] Fifty-seven per cent. of the total imports, and seventy-four per cent. of the flour imported from the United States, consisted of Baltimore flour. Argentine is the chief rival of Baltimore flour;[2] yet the element of danger it involves has perhaps been overrated. The principal demand in Brazil has been on the part of the wealthier classes, to whom cost is a less important consideration than quality. It is doubtful whether Argentine flour can compete with the better grades of Baltimore flour for years to come. Baltimore flour is the description most largely taken by Brazil; and Brazil is likewise by far the largest foreign consumer of Baltimore flour.

In the exportation of flour to Brazil, Baltimore has been somewhat less successful than in its manufacture. The four chief exporting points have been New York, Baltimore, Richmond, and Newport News.

The importance of Richmond and Newport News, as exporting points to Brazil, has been lost. In 1871, Richmond was second only to Baltimore in its exportation of flour to Brazil.[3] The period of its greatest importance extends from 1873 to 1885; after 1885 the decline in its trade was steady until 1893; since that time the trade has become insignifi-

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[1] Imports of flour at Brazil during 1885, from *Commercial Relations*, 1886, p. 1072.

Baltimore	227,624 barrels.
Richmond	44,875 barrels.
Western Interior	35,126 barrels.
River Plata	70,101 barrels.
Other countries	19,913 barrels.
Total	397,639 barrels.

[2] *Journal of Commerce*, annual statement for 1879, December 22, 1894.

[3] *Price Current*, annual statement for 1871.

cant. Richmond has possessed the advantage of an article well suited to the Brazilian market, but it has lacked one great essential to stability—demand for a return cargo.

Newport News,[1] like Richmond, has been a good market for flour, but not for coffee. Unlike Richmond, however, it is situated advantageously for steam transportation. The triangular voyage has met its needs. Regular steamers between Brazil and New York stopped at Newport News for a cargo of flour on their return voyage. Richmond has only possessed sailing vessels in its trade with Brazil; they seem unfitted for the triangular voyage. Newport News secured the larger part of the transhipment trade in Richmond flour which had previously passed through Baltimore.[2] Exports from Newport News declined from 1883 to 1888, and increased again from 1889 to 1891; since 1892 and the failure of the United States and Brazil Mail Steamship Company, they have become inconsiderable.[3] American steamers have made the triangular voyage between New York, Newport News, and Brazil, and foreign steamers the voyage between New York, Baltimore, and Brazil.[4]

Through the entire period, New York and Baltimore have been the principal points of exportation to Brazil. Their share of the trade decreased until 1881 to 1885, but since then has again increased in a very marked way. From 1881 to 1885 the combined share of New York and Baltimore was seventy-one per cent.; from 1891 to 1895, it was eighty-seven per cent.; and in 1896, ninety-four per cent. The

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[1] Instituted a port of entry, and joined with Yorktown, 1882.

[2] *Journal of Commerce*, annual statement for 1883.

[3] Average, 1883-'84, $994,599; 1885 to '88, $374,580; 1889-'90, $612,215; 1891, $916,898; 1892, $445,951; 1893-'95, $702.

[4] American lines have been heavily subsidized to carry the mails. Quick communication has been the essential consideration. Foreign vessels have been to a much greater degree subject to purely commercial-considerations; these vessels seek Baltimore rather than Newport News as shipping point for flour. See *Handbook of the American Republics*, No. 1, 206-209, 242; Baltimore *Board of Trade*, Report for 1893, 45.

share of New York in the total exports has gradually increased during the period, and the share of Baltimore has slightly decreased.[1] Yet no concentration of the export trade at New York has taken place and none promises to take place. In the case of flour, Baltimore is probably the leading port, and its lead does not seem to be lessening.[2]

The increasing share which New York has gained in the export trade with Brazil seems closely connected with two other movements which have been concurrent with that. (1) There has been a marked increase in the proportion of mixed cargoes to total exports; or, to state the same fact in another way, the proportion of flour to total exports has declined. And (2) steamers have been extensively employed in the trade.[3]

Statistics show that the proportion of flour to total domestic exports has steadily decreased. Before the Civil

[1]Domestic exports to Brazil:

PORTS.	1869-'70	1871-'75	1876-'80	1881-'85	1886-'90	1891-'95	1896
New York	3,443,716	3,267,162	3,704,612	4,415,402	4,799,515	9,101,143	10,639,335
Baltimore	1,291,197	2,106,757	2,417,397	1,751,998	2,228,604	2,838,069	2,751,884
Richmond	494,205	1,110,385	1,329,959	1,330,316	404,136	104,151	.....
Newport News	.....	.....	.....	794,866	465,469	272,991	.....
Other Ports	580,345	335,940	541,353	354,761	476,974	1,422,827	831,715
Total	5,809,463	6,820,244	7,993,321	8,647,343	8,374,698	13,739,181	14,222,934

The percentage from New York and Baltimore has been as follows:

	1869-'70	1871-'75	1876-'80	1881-'85	1886-'90	1891-'95	1896
From New York...	59	48	46	51	57	66	75
" Baltimore....	22	21	30	20	26	21	19
" Other Ports..	19	31	24	29	17	13	6
Total.....	100	100	100	100	100	100	100

[2]In 1888, Baltimore shipped 58 per cent. of the flour exported from this country to Brazil; in 1892, 37 per cent.; in 1893, 50 per cent.; and in 1896, 47 per cent.

[3]The general conclusion to which our study leads is that the concentration of trade, steam transportation, and the mixed cargo have been concurrent phenomena. The point will be considered more fully when we come to treat of the coffee trade.

War, flour formed about sixty per cent. of the exports to Brazil, and in 1895 only eighteen per cent.[1] New York is peculiarly fitted for the shipment and the distribution of mixed cargoes, and Baltimore is not. Statistics show that the proportion of flour to total exports is much higher in the case of Baltimore than the United States as a whole. This comparison is really one between Baltimore and New York; for New York possesses over ninety per cent. of the exports to Brazil, exclusive of those from Baltimore. During the fiscal years 1892 and 1893, flour constituted seventy-six per cent. of the exports from Baltimore, against only twenty-nine per cent. from all other ports. The contrast between the mixed cargo and the staple exports may also be brought out by comparing the proportion of flour, bacon, and lard, with total exports; in the case of Baltimore, the proportion for 1892 and 1893 was ninety-six per cent., while for all other ports it was twenty-nine per cent.[2] New York is peculiarly suited for the shipment of a mixed cargo; and steam transportation is peculiarly suited to carry a mixed cargo.[3]

The tables of the movement of vessels, given below, indicate the importance of steam transportation from New York and from Baltimore. From these figures, it would appear that in the period from 1891 to 1895 the proportion of steam to total tonnage cleared became greater in the case of Baltimore than New York. Sixty-one per cent. of the tonnage cleared

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[1] Proportion of flour to total domestic exports to Brazil for the United States:

Fiscal Years.	Flour. Per Cent.	Fiscal Years.	Flour. Per Cent.	Fiscal Years.	Flour. Per Cent.
1848.....	63	1869, 1870....	52	1881 to 1885..	48
1859.....	59	1871 to 1875..	57	1886 to 1890..	38
1863, 1864...	66	1876 to 1880..	50	1891 to 1895..	27

[2] In 1892 and 1893 Baltimore shipped 55 per cent. of the bacon and 37 per cent. of the lard exported to Brazil.

[3] Note the lists of exports on steamers of the United States and Brazil Mail Steamship Company. Curtis: *Trade and Transportation with Spanish America*, 17-20. The relative advantage of New York over Baltimore as a distributing centre appears in the monopoly of the re-export and transhipment trade it has secured.

from New York, and sixty-three per cent. of the tonnage cleared from Baltimore, was steam. This is only an apparent advantage in favor of Baltimore, however, due to the system of triangular voyages. Of the total domestic exports from the United States, in 1892 and 1893, sixty-six per cent. was carried in steamers; from Baltimore, fifty per cent. Yet this extensive use of steamers seems remarkable in the case of Baltimore.[1]

Vessels Clearing New York for Brazil.

Fiscal Years.	Steamers.				Sailing Vessels.			
	American.		Foreign.		American.		Foreign.	
	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.
1871 to 1875.	54	129,795	2	2,860	357	75,332	372	89,438
1876 to 1880.	28	91,757	27	34,576	368	116,690	269	70,292
1881 to 1885.	30	72,926	83	104,443	266	98,721	376	99,813
1886 to 1890.	7	13,740	122	108,229	127	62,878	262	89,920
1891 to 1895.	23	55,279	279	332,843	168	116,756	276	126,573

Vessels Clearing Baltimore for Brazil.

Fiscal Years.	Steamers.				Sailing Vessels.			
	American.		Foreign.		American.		Foreign.	
	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.
1871 to 1875.	.....	.....	2	1,928	283	83,720	131	36,367
1876 to 1880.	.....	.....	4	5,010	313	108,479	137	41,113
1881 to 1885.	1	2,014	37	43,297	207	80,227	70	24,320
1886 to 1890.	.....	.....	84	106,842	205	98,725	71	69,216
1891 to 1895.	2	3,451	118	166,650	145	89,620	28	9,280

There is very little real competition between steamers and sailing vessels from Baltimore to Brazil. The rates of the steamers, which fluctuate to a considerable extent, are usually slightly above the rates by sail. The steamers

[1] In the case of imports, 93 per cent. was the proportion for the United States against only 22 per cent. for Baltimore.

carry flour, bacon, and lard on New York account. They come to Baltimore merely because it is less expensive to purchase these commodities there than in New York, where they ship the rest of their cargo. For local shipments, steamers are unable to compete; they only secure what sailing vessels are unable to carry. The reason for this total absence of competition is the close relation that exists between the owners of Baltimore sailing vessels and the coffee importers, who are also the shippers of flour. A, a vessel owner, promises to ship half a cargo of flour and consign it to B's branch house in Brazil, if B will ship the other half cargo. By this means the steamer rate may even fall below that by sail without diverting any considerable traffic. The local shipments by sail form the most secure part of Baltimore's flour trade.

Steamers have been introduced into the export trade with Brazil, but to a less extent than in the import trade. From 1891 to 1895, ninety-three per cent. of the imports against only sixty-eight per cent. of the exports, was carried by steamers. Not only do sailing vessels carry a greater proportion of exports than of imports, but Baltimore has secured regular steam transportation to Brazil. New York, as we shall see later, has greater demand for coffee than Baltimore; it is likewise the better market for a mixed cargo. Baltimore, on the other hand, is the better market for the purchase of flour and provisions. Europe proves the best market for dry goods. The result has been the springing up of two triangular voyages: between Brazil, New York, and Baltimore, and between Brazil, New York, and Europe. It is the former route that has given Baltimore regular steam transportation to Brazil since 1885. The fact that these triangular voyages are but the recognition of industrial conditions guarantees their stability.

We find the slight relative decline in the exports from Baltimore to be due to the increase of mixed cargoes and steam transportation; the limited extent to which this has gone, in comparison with the partial concentration of the

coffee trade, seems due to the fact that these two movements have been less pronounced in the case of exports than imports.

The exports of flour from Baltimore to Brazil have declined neither absolutely nor relatively.[1] Baltimore is the leading port in the United States for the manufacture and exportation of flour to Brazil. The size of the trade has been sufficient to secure regular steam transportation, although the chief dependence of the trade lies in the Baltimore sailing vessels. The trade gives every promise, not only of preservation, but of increase in the future. The flour trade to Brazil is the most important branch still existing of Baltimore's South American trade.[2]

Imports.

The thirty years since the close of the Civil War are very important in the history of commerce for the radical changes they have brought about. The effects of the period on the South American trade of Baltimore are marked. It is one of the principal aims of this monograph to trace the connection between the changes observable in Baltimore's South American trade and the general commercial changes of this period.

One noticeable feature of the period has been the disappearance of smaller lines of trade and their aggregation at some one point. Thus, in the South American trade, Baltimore has lost the smaller lines of importation which it possessed before the Civil War, and its share has come to consist

[1]The feeling in Baltimore has been widespread that the abrogation of the reciprocity treaty meant the decline of the city's flour trade with Brazil. *Board of Trade*, 1896, 10, 46; *Journal of Commerce*, December 22, 1894. That fear seems ungrounded. No clearly marked effect of the treaty on the trade of Baltimore can be discerned. Worthington C. Ford concludes that the general effect of the treaty was slight. *Commerce and Navigation*, 1893, lxxviii.

[2]The special reasons for the prosperity of this branch of the trade will be considered in the Conclusion. Comparison with the coffee trade during the period will be found necessary.

more and more largely in its imports from Brazil. The movement is shown in the accompanying table:[1]

Imports into Baltimore from South America.

COUNTRIES.	Average 1869-'70.	Average 1871 to '75.	Average 1876 to '80.	Average 1881 to '85.	Average 1886 to '90.	Average 1891 to '95.	1896.
Argentina	135,830	39,828	.....	592	.....	1,478	7,215
Brazil	5,422,106	9,721,329	9,835,888	4,679,255	3,638,593	4,367,963	3,291,508
Chile	282,122	5,694	.....	98,685	122,483	166,206	86,325
Colombia	35,762	46,639	105,696	44,356	36,000	22,694	54,415
British Guiana	.....	617,637	.....	384,041	1,279	62,246	.....
Peru	304,809	324,214	136,811	75,103	16,631	.....	.....
Uruguay	95,347	108,856	166,887	94,733	37,131	37,362	25,705
Venezuela	9,897	9,884	36,657	61,106	36,097	12,085	9,165
Total	6,235,673	10,874,081	10,281,939	5,437,871	3,888,214	4,670,036	3,474,333

The Brazilian trade may be said to constitute practically the whole of Baltimore's South American trade, except the imports from Chile. The period has witnessed the decline of the imports of sugar from British Guiana, hides from Argentina and Uruguay, and guano from Peru. Since the end of Baltimore's importation of Venezuelan coffee, imports from Venezuela have become inconsiderable. Baltimore still imports small quantities of cocoanuts from Colombia, guano from Venezuela, bone dust from Uruguay and Argentina, and nitrate of soda from Chile. Baltimore's demand for these articles is not sufficiently extensive to justify large imports of them; and Baltimore seems entirely unfitted for the importation of a general cargo.[2] With no South American country except Brazil has Baltimore close commercial relations; as a place for the importation of South American

[1] The proportion of South American imports at Baltimore consisting in imports from Brazil has been as follows: in 1869 and 1870, 87 per cent.; from 1871 to 1875, 89 per cent.; 1876 to 1880, 96 per cent.; 1881 to 1885, 86 per cent.; 1886 to 1890, 94 per cent.; 1891 to 1895, 94 per cent.; 1896, 95 per cent.

[2] Of Baltimore's imports from these countries, in the fiscal years 1892 and 1893, 92 per cent. consisted in the commodity mentioned as the principal import from each country.

products, Baltimore's rank depends entirely upon the extent of its coffee trade with Brazil.

The imports of Baltimore from Brazil, which have just been shown to comprise nearly all its imports from South America, in turn consist almost wholly in coffee. Total imports into Baltimore from Brazil and total imports of coffee into Baltimore have been almost identical throughout the period under consideration; the variation has never been so great as 1.4 per cent. In the fiscal years 1888, 1892, and 1893, the proportion of coffee to total imports from Brazil was in each case ninety-nine per cent., and the proportion of coffee from Brazil to total imports of coffee was even greater.[1] The practical identity established between Baltimore's imports of coffee and its imports from Brazil brings out two distinct characteristics of the trade which appeared in the preceding period, but reached their fullest development in this.

(1) Baltimore receives no mixed cargoes among its imports from Brazil. In 1895, besides coffee, the imports from Brazil into the United States were composed of India rubber, sugar, hides, cocoa, fruit, and hair.[2] Baltimore imported none of these articles at all, except fruits and hair, and those only to a small amount; it possesses no active demand for any Brazilian product except coffee. New York, on the contrary, imports most largely of each of the subsidiary imports from Brazil.

[1]Imports into Baltimore:

	(1)	(2)	(3)	(4)	(5)	Proportion of	
Fiscal Years.	Imports from Brazil.	Coffee from Brazil.		Total Coffee Imported.		(3) to (1.)	(2) to (4.)
	Value.	Pounds.	Value.	Pounds.	Value.	Per Ct.	Per Ct.
1888.....	2,479,089	17,999,994	2,468,528	17,968,632	2,473,067	99.13	99.84
1892.....	3,606,966	17,765,074	3,604,960	17,793,448	3,606,610	99.95	99.84
1893.....	3,909,133	29,135,878	3,906,183	29,216,530	3,924,169	99.92	99.72

[2]Coffee, $60,316,677; India rubber, $13,195,255; sugar, $2,701,287; hides, $1,617,205; cocoa, $374,186; fruits (other free), $181,777; hair, $101,009; miscellaneous, $344,080; total, $78,831,476.

(2) Baltimore receives no coffee from any country except Brazil. Imports from Venezuela are concentrated almost entirely at New York; they come by steamer, and are largely transhipped to Europe from New York.

An inquiry into the distribution of the trade with Brazil through the period is now before us. The general progress of the trade will be shown, with its effects on the share of the trade which Baltimore has secured.

The question at issue during the greater part of the period before the Civil War was whether the seaboard or the Gulf ports possessed the better situation for the importation of coffee. Toward the close of the period, that question seems to have been answered in favor of the seaboard; and since that time the main question has been as to the distribution of the trade among the seaboard cities. The war gave a temporary monopoly of the trade to New York; but at its close Baltimore again presented its claims for a greater share of the coffee destined for the interior. Its three great advantages over New York were shown to be: (1) greater proximity to the west; (2) cheaper expenses of handling; and (3) an excellent return cargo to Brazil.[1] Western sale has formed the principal part of the demand for coffee. Hence transportation between the west and the seaboard is a far more important element in the coffee, than the flour, trade with Brazil.

The general tendency has been toward the concentration of the import trade with Brazil at New York. The table presented shows the proportion of the total imports from Brazil received at Baltimore, New York, and New Orleans during successive terms of years:

Fiscal Years.	Baltimore. Per Cent.	New York. Per Cent.	New Orleans. Per Cent.	Other Ports. Per Cent.
1869–'70.....	22	62	8	8
1871 to '75....	26	54	13	7
1876 to '80....	22	63	8	7
1881 to '85....	10	77	6	7
1886 to '90....	7	84	6	3
1891 to '95....	5	88	5	2
1896.....	5	90	4	1

[1] *Price Current*, annual statements for 1865, 1866, and 1867; see also statement for 1858.

This table shows that the trade of Baltimore secured a relative increase up to the period from 1871 to 1875; the year 1876 gave even a more favorable showing. But since that time, the share of New York has steadily increased, and the share, not only of Baltimore, but of New Orleans and other ports, has as steadily decreased. The period which saw the beginning of New York's pre-eminence marks the first considerable use of steam transportation between the United States and Brazil. The period of Baltimore's greatest success was the period when the proportion of coffee to the total imports from Brazil was largest. The conclusion is scarcely to be resisted, that New York is better fitted for steam transportation and for mixed cargoes.

Concentration of the trade, and the increase of steam transportation by water, have been concurrent and closely related phenomena. The table given shows the progress of steam transportation between Brazil and the United States:[1]

Steamers Entering the United States from Brazil.

Fiscal Years.	New York.				Baltimore.			
	American.		Foreign.		American.		Foreign.	
	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.	Vessels	Tons.
1871 to 1875.	59	140,184	27	36,452	.....	.....	3	3,088
1876 to 1880.	28	90,938	134	231,433	.....	.....	13	17,993
1881 to 1885.	43	97,043	380	533,163	1	862	21	24,926
1886 to 1890.	74	144,333	517	572,949	.....	.....	17	17,131
1891 to 1895.	58	135,270	642	830,966	.....	.....	12	14,403

The table shows a marked increase in steam tonnage entering New York from 1876 to 1880. That was the period of the first regular use of steamers in the trade. The preceding five years had been mainly a period of experiment. It is

[1] Only steamers with cargo are included. Two steamers entered New York, and three entered Baltimore in ballast during this period.

also noticeable that New York, as against Baltimore, has had a practical monopoly of the steam tonnage entering from Brazil. But while Baltimore has failed to secure steam transportation from Brazil, it has secured steam transportation to Brazil.[1]

Attention has also been called to the effect of the importation of mixed cargoes, as tending to increase the trade of New York. The table presented shows the proportion of coffee to total imports from Brazil. Baltimore, as has already been shown, receives practically nothing but coffee from that country.

Fiscal Years.	Proportion of Coffee to Total Imports. Per Cent.
1869–1870	75
1871 to 1875	82
1876 to 1880	82
1881 to 1885	63
1886 to 1890	70
1891 to 1895	77
1896	76

The highest proportion of coffee, it will be noted, was in the decade from 1871 to 1880, the period of Baltimore's largest relative imports. The increase in general imports since then has probably been promoted by steam transportation. It is much more essential to have regular and quick transportation for various imports than for imports of one kind. The introduction of various lines of Brazilian products has been rendered easier, because steamers, requiring large cargoes, find it more difficult to secure full cargoes of one commodity, and more profitable to carry other goods, even at

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[1]Why Baltimore has failed to secure steam transportation from Brazil will be inquired below.

The proportion of steam to total tonnage entering New York and Baltimore has been as follows:

	New York. Per Cent.	Baltimore. Per Cent.		New York. Per Cent.	Baltimore. Per Cent.
1871 to '75	39	2	1886 to '90	59	18
1876 to '80	47	10	1891 to '95	84	16
1881 to '85	56	22	1896	90	21

cheaper rates, than take only a partial cargo. And New York, by virtue of its position as the principal distributing centre on the seaboard, is a market peculiarly advantageous for a mixed cargo. The advantage which New York thus gains is very considerable. In 1895, the tonnage entering Baltimore was 9.9 per cent. that entering New York, but its imports equaled only 5.9 per cent. those of New York in value. The vessels entering Baltimore that year carried cargoes equal only to sixty-seven per cent. of their capacity.[1] A loss of economy is present in Baltimore's trade because of the lack of demand for other commodities than coffee.

One important reason why Baltimore receives few imports by steamer is because it is unfitted for the importation of a mixed cargo, and cannot thus guarantee a full cargo, as New York can. A still more important reason results from the heavy initial cost of steam transportation. When steamers were first introduced, they naturally selected New York as their port. It has been easier to increase New York's transportation facilities than to provide similar facilities at Baltimore. The relative advantages that Baltimore has to offer have not proved sufficient to attract the capital necessary to the establishment of a rival line of steamers to run regularly between Brazil and Baltimore; and regularity would be necessary to compete successfully with New York. It has been much easier to increase the receipts by steamer at New York, than to build up a new line of trade by steamer with Baltimore. A third reason is, that the need of transportation for flour from Baltimore to Brazil is much greater than the need of transportation for coffee to Baltimore. On this account, a triangular voyage between Brazil, this country, and Europe, which is so well suited to the conditions of the New York market, is not at all suited to the character of the Baltimore market.

The general movement of the coffee trade has been traced.

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[1] A result obtained by dividing the tons of coffee received by the tonnage of the vessels entering from Brazil.

A study of its temporary fluctuations, which follows, is not unimportant.[1]

The effect of the Civil War on the coffee trade of Baltimore has been shown. The year 1865 brought no improvement. But in 1867 more coffee was imported than ever before in the history of the port; and from 1867 to 1871 the imports increased still further.

During 1870 and 1871 there was also a marked relative increase in Baltimore's imports of coffee. The cause was merely temporary in its operation: a quarantine charge was imposed at New York which was considered exorbitant, and New York importers ordered their vessels to Baltimore until the charge was removed, when the trade reverted to New York.[2] Although of no permanent importance, the incident illustrates the effect of local port charges on the localization of a trade.

The tariff of 1872, admitting coffee free of duty, exerted no appreciable effect on the trade of Baltimore. But in 1874 an event occurred of much more immediate interest. A line of British steamers, known as the King Line, was established, to make triangular voyages from Brazil to Baltimore, then to Liverpool, and thence to Brazil again. The line continued in operation during 1875 and 1876. The result was that the Baltimore market became overstocked with

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[1]The calculation given, showing the proportion between the coffee imported into Baltimore, and the coffee imported into the United States from Brazil, exhibits these temporary fluctuations, from 1869 to 1896:

Fiscal Years.	Per Cent.	Fiscal Years.	Per Cent.	Fiscal Years.	Per Cent.
1869.....	23	1879.....	25	1888.....	7
1870.....	35	1880.....	24	1889.....	13
1871.....	36	1881.....	23	1890.....	8
1872.....	38	1882.....	16	1891.....	9
1873.....	30	1883.....	15	1892.....	4
1874.....	28	1884	11	1893.....	7
1875.....	35	1885.....	18	1894.....	8
1876.....	38	1886.....	15	1895.....	7
1877.....	31	1887.....	9	1896.....	7
1878.....	25				

[2]*Price Current*, annual statements for 1870, 1871, and 1872.

coffee; the experiment proved a failure.[1] This is the only attempt that has been made to carry on a triangular voyage between Brazil, Baltimore, and Europe. It failed: (1) because Baltimore is a better market for flour than coffee; vessels exporting flour to Brazil are ample for the importation of coffee; and (2) because the steamers could not obtain a full cargo by carrying a mixed cargo, an expedient open to vessels for New York.

The effect of the system of differentials on the coffee trade of Baltimore is difficult to estimate. Since the Baltimore and Ohio secured connection with Chicago,[2] railroad war and the system of differentials have alternated, so that the latter cannot be compared with a normal condition of affairs in which it does not obtain. We should expect the system to prove in no way advantageous to Baltimore's coffee trade, because the differential varies with bulk alone, and is thus relatively least in the case of valuable goods, such as coffee. The facts seem to bear out our expectation. Assuming as normal the share of coffee received at Baltimore during the fiscal year 1877, we observe a decrease the following year. Another decrease, however, occurred during the fiscal year 1882, which included part of the rate war of 1881. But in this war, the New York Central, not the Baltimore and Ohio, was the active party.[3] It is possible to speak

[1] Baltimore *Journal of Commerce and Price Current*, annual statements for 1874, 1875, 1876. In 1875 the largest importation of coffee in the history of Baltimore took place.

[2] In 1874. In 1875, a war was threatening, which broke out in 1876; in 1877 the system of differentials was adopted as a compromise to end that war. Other wars occurred in 1881 and 1884-'85, at the close of both of which the system was re-established. Hadley: *Railroad Transportation*, 94-99. See *Journal of Commerce*, March 25, 1882.

[3] The shipments west from Baltimore, over the Baltimore and Ohio, fell considerably in 1881, as appears in the table. In 1876 and 1885, the Baltimore and Ohio was a more active combatant.

Calendar Years.	Bags.	Calendar Years.	Bags.	Calendar Years.	Bags.
1878....	287,417	1883....	220,550	1887....	81,427
1880....	268,935	1884....	254,373	1888....	69,806
1881....	145,526	1885 ...	294,473	1889....	98,081
1882....	229,915	1886....	193,432	1890....	91,183

with much greater accuracy of the effect of the war of 1884-'85 than of the previous rate wars.

Increased importation of coffee occurred during the years 1884 and 1885. For the three calendar years before 1884, Baltimore's receipts of coffee from Brazil averaged 364,759 bags. During 1884 and 1885 the average was 486,753 bags. In 1886 and 1887 the average fell again to 211,167 bags. A comparative view of the imports from Brazil at Baltimore and New York gives a similar result.[1] The increased relative importations seem due almost entirely to the reduction of rates to the interior, by the Baltimore and Ohio, much lower than the system of differentials allowed. The increased imports came by steamer, largely on New York account, and were destined for the interior. In 1885 about forty per cent. of the coffee imported came by foreign steamers, none of which carried return cargoes to Brazil; and about seventy per cent. of this was imported on New York account. If the imports on New York account, destined for the interior, be deducted from the total for the year, the remainder will be less than the average imports from 1881 to 1883.[2] The increased western shipment of coffee from Baltimore is also noticeable. Although a general decline in this trade was already discernible, appearing most clearly after 1886, the coffee shipped west from Baltimore in 1884 and 1885 was much greater than in preceding or following years. The importance of Baltimore as a point of transhipment west disappeared with the railroad war that

[1]Proportion of total imports from Brazil received at Baltimore and at New York:

Fiscal Years.	At Baltimore.	At New York.
1884.....	6.5 per cent.	82 per cent.
1885.....	11.6 per cent.	75 per cent.
1886.....	9.1 per cent.	79 per cent.
1887.....	5.7 per cent.	86 per cent.

[2]Coffee imported into Baltimore from Brazil during the calendar year 1885, total, 501,527 bags; imported by steamer, 204,217 bags, of which 143,054 bags came on New York account. See *Journal of Commerce*, annual statements for 1884, 1885, and 1886.

had occasioned it. In 1886, coffee was again imported exclusively in American sailing vessels, on Baltimore account, and for the use of the local trade.

Since 1885 no marked change has occurred in Baltimore's coffee trade. New York's position has become more firmly established.[1] The concentration of the trade in Venezuelan coffee is complete; the share of New York in the trade in Brazilian coffee is steadily increasing. New York seems to be in a position to secure most of the increase in the trade. But Baltimore's vested interests, the need of a return cargo for its exports of flour, and its lower port charges, probably guarantee the maintenance of its present trade in coffee. Baltimore's trade in coffee is by no means limited to its direct importations. It is estimated that one-half of the coffee imported by Baltimore dealers comes through New York, and is distributed from that city instead of Baltimore.

The relative advantages of New York and Baltimore may be briefly summarized. (1) The charges at Baltimore are much lower than at New York. The Board of Trade places the cost of sampling and unloading at $14.50 per 1000 bags in New York, and only $2.00 in Baltimore. (2) Transportation to the interior is cheaper at Baltimore than New York. If the system of differentials is carried out in good faith, this would mean an advantage to Baltimore of $39.60 per 1000 bags. (3) New York is a much better market for general imports than Baltimore, because of its superiority as a distributing centre. This advantage enables vessels to obtain a better cargo for New York than for Baltimore. (4) New York possesses regular steam transportation from Brazil, and Baltimore does not. Over ninety-five per cent. of the imports into this country, exclusive of the imports into Baltimore, come by steamer; seventy-eight per cent. of the

[1] From 1869 to the present the trade of New Orleans has remained almost stationary. New Orleans has no export trade to Brazil; its imports are largely carried in transient steamers. There is no such close correspondence between its total imports of coffee and its total imports from Brazil as in the case of Baltimore.

imports into Baltimore come in American sailing vessels.[1] Importation by steamer is characteristic of New York's coffee trade; importation by sail, of Baltimore's coffee trade. The two methods will be contrasted.

There is no difference in the rate to Baltimore and to New York; Baltimore's greater proximity to Brazil is hence no longer any advantage. The rate by steamer is forty-two cents per bag, and by sail twenty-five cents. There is thus a saving of freight by sail amounting to one hundred and seventy dollars per thousand bags. The coffee, moreover, comes in considerably better condition by sail than by steamer. These advantages, however, have been proved by the logic of events to be small in comparison with the advantages offered by steam transportation. (1) Coffee is purchased on a narrow margin between the New York and the Rio quotation. Hence the importance of certainty, both as to the time of sailing and the length of the voyage, is very great. Steamers do not make the voyage in so much shorter time than sailing vessels do on the average. But the length of the voyage of the steamer is calculable—about twenty-four days—while the time for the sailing vessel varies from thirty to sixty days. (2) The amount of interest is affected by the length of the voyage. Coffee is purchased by draft on London payable after sight. Thus another element of uncertainty[2] is present in importation by sailing vessels. (3) The marine insurance on cargoes of sailing vessels is double that on cargoes of steamers.[3] The decisive advantage afforded by regular steam transportation—an advantage enjoyed exclusively by New York—is greater certainty, and hence the ability to purchase on a closer margin. It is this advantage that has led Baltimore dealers to import largely by way of New York.

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[1] Figures are for the fiscal years 1892 and 1893.

[2] Of perhaps $85 per 1000 bags.

[3] An advantage in favor of steamers of about $68 per 1000 bags.

II. Trade with the West Coast.

The total suspension of the importation of guano from Peru to this country during the Civil War has already been considered. Upon the close of the war the attempt was made to resume the trade as it had existed before the outbreak of the war. From September, 1866, the imports of Peruvian guano at Baltimore were heavy. It was expected that Baltimore would again become the leading market for that article.[1] From the latter part of 1867, cargoes were consigned to a special Baltimore agent, instead of the New York agents.

The imports, however, were soon found to have been excessive. Before the war, guano at Baltimore had been largely taken by the south. During the war, a substitute for guano was required in that section, and a large increase in the manufacture of fertilizers took place. The demand for guano at the south was thus largely diminished, even after the war was over.[2] The high price of Peruvian in Maryland had rendered necessary recourse to phosphatic and manipulated guano. As the land came to be devoted more to the cultivation of wheat and relatively less to tobacco, the distinctive quality of Peruvian guano, its large proportion of ammonia, was less necessary. Competition with other fertilizers—of which various kinds were manufactured in Baltimore at this time[3]—largely restricted the use of Peruvian guano in Maryland. The use of Navassa guano, especially, was extended in Baltimore after the incorporation

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[1] See *Price Current*, annual statements for 1866 and 1867. From September, 1866, to the close of 1867, Baltimore imported 41,604 tons of Peruvian guano; the whole country received only 87,103 tons for the two fiscal years 1867 and 1868.

[2] *Ibid.*, annual statements for 1866 and 1871; see also issue of March 11, 1871.

[3] *Ibid.*, 1867. Nineteen varieties of fertilizers are listed.

of the Navassa Guano Company in 1867.[1] After the war Peruvian guano was only one of many fertilizers; before that time it had possessed a considerable element of monopoly.

From 1868 to 1873 excessive and insufficient importation into Baltimore regularly alternated. From 1874 to 1879 the importation was relatively stable, but small compared with previous years. In 1889 the last importation of Peruvian guano took place.[2]

The decline in the imports of Peruvian guano was not confined to Baltimore; Baltimore's trade only shared in the general movement. Guano as an export from Peru had to compete with nitrate of soda.[3] By 1873, the government began to fear that nitrate of soda, an industry conducted on private account, would become more important than guano, the industry in which the government was interested. In 1874 nitrate of soda was exported to greater value than guano. The next year it was determined to secure the nitrate industry as a means of national revenue to take the place of guano, the export of which, it was plainly seen, must soon cease.[4]

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[1]The principal use of Navassa was as an ingredient in Patapsco guano. *Ibid.*, 1864.

[2]Note the advertisement of J. Q. A. Holloway, as agent for W. R. Grace and Company, of New York, agents for the consignees of the Peruvian government, in the *American Farmer* for April and May, 1880. Also the advertisement of Robert Turner and Sons in the *Journal of Commerce* during the latter part of 1881. The guano offered by Turner was purchased at the deposits from agents of the government.

[3]Nitrate of soda was introduced into commerce earlier than guano —during the decade from 1820 to 1830. Its real importance dates from 1852, the year the first company for the mining and manufacture of nitrate was formed. Until 1875 the trade continued in the hands of private companies. *Consular Reports*, No. 68, 603-613; No. 114, 407. Baltimore imported some little nitrate before the Civil War, but it was little used as a fertilizer in that section. Maryland, *Fifth Agricultural Report*, 1856, 42; see also *Price Current*, Dec. 29, 1855, and Feb. 17, 1856.

[4]*Commercial Relations*, 1875-'76, p. 1118; 1876-'77, p. 786.

The war with Chile left the industry in the hands of that country. On June 11, 1881, the president decreed the return of the works to the persons holding certificates of indebtedness. English companies secured the largest of the old establishments. Strong efforts have been made to monopolize the trade.[1]

Baltimore's trade in nitrate of soda has always been small in comparison with its trade in guano. In 1834 and 1838 small quantities of nitrate (or saltpetre) were imported from Peru and Chile. In 1858, nitrate to the value of $46,039 was received, of which about one-fourth was imported on Boston account. Since 1874, Baltimore has received nitrate of soda with considerable regularity, and since the Chile-Peruvian war, nitrate has constituted almost the whole of Baltimore's imports from Chile. Baltimore has never ranked above fifth place as importing point for nitrate of soda, except in 1893, when it reached third place.[2] Nitrate has never been in demand as a fertilizer in Maryland; it has been required only for use as a chemical. Its influence on the trade of Baltimore has been mainly negative. It furnished a substitute for guano as an export from Peru,[3] much less suited to the demands of Baltimore.

Baltimore has left of its trade with the west coast of South America only its imports of nitrate from Chile. The copper trade was lost through the tariff of 1869. No exports to Peru have taken place, at least since 1868, and none to Chile since 1875.[4] The true sequel to Baltimore's trade in Peruvian guano is to be found in its extensive fertilizer trade. Of other

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[1] *Consular Reports*, No. 68, pp. 603-613.

[2] New York, San Francisco, Boston, and Philadelphia usually rank higher than Baltimore. In 1893, Baltimore came after San Francisco and received 5,690 tons valued at $191,185, of which 95 per cent. came from Chile. The imports of nitrate average about $125,000.

[3] See *Journal of Commerce*, April 11, May 30, August 15, October 10 and December 5, 1885, and February 20, 1886.

[4] During the seven fiscal years, 1869 to 1875, Baltimore's exports to Chile were only $92,382.

guanos, Navassa has found its principal market in Baltimore. Peruvian guano was the first great commercial fertilizer, and concentrated the fertilizer trade at Baltimore. For the last two decades the trade in fertilizers has been very extensive; it is no longer a branch of the South American trade; but the South American trade before the Civil War prepared the way for it.[1]

[1] In 1880 commercial fertilizers to the value of $5,419,358 were manufactured in Baltimore. "Baltimore has entire control of the fertilizer market now and ought to keep it." *Journal of Commerce*, April 8, 1882. In 1894, Baltimore's output was about 200,000 tons. *Ibid.*, January 26, 1895. See also *Board of Trade*, Report for 1896, 36-37.

CHAPTER IV.

CONCLUSION.

Baltimore's Flour Trade with Brazil.

While the general tendency has been for the trade between the United States and South America to become concentrated at New York, Baltimore has probably remained the chief place for the export of flour to Brazil.[1] It is necessary to inquire, in detail, why this trade has been so much more successful than other branches of the South American trade. The chief reasons seem to be: (1) Baltimore's imports of coffee have furnished a return cargo for flour. (2) Baltimore flour has been especially manufactured to suit the requirements of the Brazilian climate. (3) The trade with Brazil has been of sufficient extent for Baltimore to export the one line of goods for which it is best fitted without exporting mixed cargoes for which, in comparison with New York, it is entirely unfitted. (4) Steam transportation, with the system of triangular voyages, has rendered it possible for New York to ship an assorted cargo and Baltimore to ship flour by the same vessel. (5) Baltimore has less competition to meet on the part of New York in the export than the import trade, because of the triangular voyage from New York to Europe, and thence to Brazil.

(1) The coffee trade which Baltimore retains furnishes at

[1]Baltimore possesses about 20 per cent. of the export trade with Brazil. It ships nearly as much flour there as all the other ports of the United States together. In the fiscal year 1896, its proportion was 47 per cent. of the whole. Baltimore's share of the imports from Brazil and Chile is about 5 per cent., and from Uruguay, 2 per cent. In other branches of the trade, its share has become insignificant.

least a partial return cargo for Baltimore sailing vessels carrying flour to Brazil. The flour trade is not produced, but rather limited, by the coffee trade. Yet without the latter, a most important part of the flour trade would be lost—that carried in American sailing vessels, which in 1892 and 1893 formed forty-seven per cent. of the total exports. These vessels, belonging to the port and engaged regularly in the trade, not only show the means by which this trade was built up, but to-day constitute one of the most conservative forces in the trade.

(2) Baltimore is especially fitted for the export of flour to Brazil. The need of preparing special goods to satisfy the peculiar demands of the South American market, has been urged again and again as a most important means of increasing the export trade of the United States.[1] Baltimore has done this in the case of flour, especially since the Civil War. New York, on the contrary, is by no means a good flour market, except for western flour, a description of little demand in Brazil. Brazil must receive Baltimore flour, and it has been found cheaper for vessels from New York to stop at Baltimore *en route* for Brazil, than to carry the flour to New York and tranship it there. Baltimore is also a good market for the secondary staple exports, bacon and lard.

(3) The advantages from the concentration of a particular line of trade decrease as its size increases. A trade must be large to enable it now to be divided among several ports. As the trade is smaller, and as the number of commodities included within it is larger, its concentration at one port is more certain. No other city approaches New York as a market for general commodities. The Brazilian trade, however, is extensive; and both among its exports and imports there is one line of goods large enough in itself to constitute a trade. The tendency is for the mixed cargo to be shipped

[1]European and American manufactured goods contrasted, in *Handbook of the American Republics*, No. 1, 140, 149-150. A much closer parallel to Baltimore flour is brought out in the contrast between French and American butter. *Commercial Relations*, 1895, i. 64.

from New York and flour to be shipped from Baltimore. This is rendered possible by the triangular voyage between New York, Baltimore, and Brazil.

(4) Steam transportation, as has been shown, appears to be less necessary for exportation to Brazil than for importation from that country, and less necessary probably for the exportation of flour than mixed cargoes. Coffee importers usually ship flour to Brazil on the return of the vessel. Flour is an article for which the demand is constant, and but little affected by the price. The Brazilian market is not sensitive; comparatively little risk is assumed in exporting a cargo of flour. Coffee, on the other hand, is imported on a close margin between quotations in Brazil and in this country, and in its case lack of swift and regular means of transportation must often cause a loss to the importer. Regular steam transportation is thus less important in the case of flour than coffee. But Baltimore does not suffer even this minor disadvantage. Its excellence as a market for flour has given it regular steamers to Brazil.

(5) Baltimore has less competition to meet on the part of New York in the export than the import trade, because of the alternate employment that is open to steamers which have brought coffee to New York, to carry grain to Europe, and thence dry goods to Brazil, rather than carry a return cargo direct to Brazil. This triangular voyage is based on the demand of Europe for American grain, the demand of New York for Brazilian coffee, and the demand of Brazil for European dry goods. Only steamers seem fitted for such a voyage; at any rate, the triangular voyage does not diminish at all the tonnage clearing from Baltimore to Brazil, while it materially lessens competition from New York. The demand for transportation to Brazil is much greater than the demand for transportation from Brazil to this country. Vessels clearing for Brazil almost always secure a full cargo. The value of the imports greatly exceeding that of the exports tends to obscure this fact. Thus from 1891 to 1895 the value of the imports was six

times as great as the value of the exports.[1] But coffee is about seven times as valuable as flour in proportion to weight. In bulk, therefore, the imports and exports are about equal. But owing to the triangular voyage by way of Europe, a much larger amount of tonnage seeks cargoes for this country than for Brazil.[2] The consequence is that the flow of exports to Brazil is much stronger than the flow of imports here.[3] This general fact is peculiarly apparent in the case of Baltimore. The clearances at Baltimore are three times as great as the entrances.[4] But this is not all. Vessels enter with but partial cargoes; they clear fully laden. The calculation given brings out this fact:[5]

Fiscal Years 1892 and 1893.	Imports and Entrances.		Exports and Clearances.	
	Sailing Vessels.	Steamers.	Sailing Vessels.	Steamers.
Cargoes:				
Value.....	5,868,285	1,647,841	2,267,410	2,281,944
W'ght, estim't'd (tons)	16,366	4,584	36,800	37,130
Tonnage of Vessels.....	24,534	4,763	37,943	55,201

[1]Exports, $69,591,905; imports, $436,277,972.

[2]Tonnage entered New York from Brazil, 1891 to 1895, 1,153,377; cleared, 621,951 tons. Excess of clearances of foreign steamers over entrances at Baltimore, comprising approximately the triangular voyage between New York, Baltimore, and Brazil, 150,012 tons. Deducting this figure, the difference of 381,414 tons, about one-third of the whole, represents approximately the tonnage engaged in the triangular voyage between New York, Europe, and Brazil.

[3]A further indication of this fact appears in the much higher rate of freight, in proportion to bulk, for flour than coffee. The rate for flour may be placed at 75 cents per barrel (196 lbs.) by sail and 80 cents by steamer, against 25 cents by sail and 42 cents by steamer for coffee per bag (132 lbs.) The greater difference in rates between sail and steamer similarly indicates the greater relative importance of steam transportaion in the case of coffee.

[4]Clearances, 1891 to 1895, 269,001 tons; entrances, with cargo, 87,737 tons; in ballast, 17,510 tons.

[5]The calculation is based on the following assumptions: That coffee, at 16 cents per pound, constitutes the entire inward cargo,

Thus the cargoes of sailing vessels entering Baltimore constitute little more than two-thirds their capacity;[1] while these vessels clear with full cargoes. The general rule seems reversed in the case of steamers. The exception is only apparent, however. Steamers clearing for Brazil have usually taken their general cargo at New York; and it is only to be expected that steamers bound for Baltimore will carry better cargoes than sailing vessels.

Summary of Results.

The general conclusions to which this study has led may be presented in a series of propositions:

(1) The early South American trade was peculiarly suited in its character to the spirit of enterprise and desire for adventure that actuated Baltimore merchants. As a consequence, the early commercial importance of Baltimore was due largely to its West India and South American trade.

(2) Before the Civil War, Baltimore was the principal importing and distributing centre for guano, which was the earliest commercial fertilizer introduced to any considerable extent into America.

(3) The present extensive fertilizer trade of Baltimore is historically the outgrowth of its trade in guano.

(4) The copper smelting industry of Baltimore is also the outgrowth of its South American trade. The Copper Act of

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and that flour, at $4.56 per barrel, constitutes 80 per cent., and bacon and lard, at 9.7 cents per pound, constitute 20 per cent. of the outward cargo. Flour really constituted 76 per cent. of the exports; otherwise the assumptions are strictly true.

[1] The entrances given are with cargo. In addition, many of the vessels entering, but none clearing Baltimore, are in ballast. Percentage of the tonnage of sailing vessels entering in ballast:

	At Baltimore.	At New York.		At Baltimore.	At New York.
1871 to '75 ...	3	1	1886 to '90....	20	....
1876 to '80....	11	10	1891 to '95....	17	....
1881 to '85....	7	3	1896.....	20	....

1869, passed in the interest of the owners of the Lake Superior mines, necessitated the substitution of domestic for foreign ores; it caused the Baltimore establishment, which used mainly Chilean ore, to be closed temporarily; but three years later the industry at Baltimore was reorganized to work on domestic ore.

(5) Baltimore still possesses a very extensive trade in coffee. A relative decline in this trade has taken place, however, and to a limited extent the trade in Brazilian coffee has become concentrated at New York. Baltimore has completely lost its trade in all other lines of imports from Brazil. The partial concentration of the Brazilian trade at New York seems closely connected with two other phenomena: 1. The extensive employment of steam transportation; and, 2. Baltimore's lack of demand for a mixed cargo. The very considerable share of the coffee trade that Baltimore still retains is due to: 1. Its advantages as an exporting point for flour; 2. Its fleet of sailing vessels and other vested interests involved in the coffee trade; and 3. The lower port charges at Baltimore.

(6) Until 1885, the trade with Brazil formed the principal element in Baltimore's flour trade. Since 1885, the export to Great Britain has become larger. But Brazil still receives a greater quantity of Baltimore flour than any other country; and it receives a greater quantity of Baltimore flour than of any other description, and probably a greater quantity of flour direct from Baltimore than from any other port in this country.

APPENDIX.[1]

Domestic Exports from Baltimore to South America.

COUNTRIES.	1803	1810.	1816.	1823.	1827.	1838.	1848.	1858.	1863.
Colombia	.....	18,221	990	13,144	19,033	.....	20,731	41,772	29,619
Venezuela	5,615	149,728	29,474	45,904	12,976	122,444	123,496	136,762	19,761
British Guiana	15,737	.....	.....	.....	.....	.....	147,180	435,623	285,382
Dutch Guiana	14,680	13,678	.....	.....	.....	.....	.....	22,315	7,741
French Guiana	41,315	6,800	7,576	.....	.....	.....	.....	.....	.....
Brazil	.....	31,914	36,723	251,903	358,424	645,019	963,050	1,020,664	1,368,480
Argentina	.....	31,374	118,422	122,178	.....	27,336	.....	34,196	145,296
Uruguay	.....	21,188	.....	.....	50,899	29,314	167,378	223,623	.....
Chile	.....	.....	.....	11,917	601,635	175,265	143,961	205,664	122,349
Peru	.....	.....	12,571	61,824	89,275	97,525	94,815	193,825	.....
Bolivia	.....	.....	.....	.....	.....	.....	.....	12,378	.....
Ecuador	.....	.....	.....	.....	19,348	.....	.....	.....	.....
Total	77,347	272,903	205,756	506,870	1,151,530	1,096,903	1,660,611	2,326,821	1,978,628

Re-exports from Baltimore to South America.

COUNTRIES.	1803	1810.	1816.	1823.	1827.	1838.	1848.	1858.	1863.
Colombia	.....	19,336	4,473	10,787	3,310	.....	.....	3,011	46
Venezuela	6,081	167,233	23,644	73,419	.....	10,047	3,519	634	.....
British Guiana	1,745	.....	.....	.....	.....	.....	415	845	38
Dutch Guiana	.....	.....	.....	.....	.....	.....	.....	106	.....
French Guiana	25,450	.....	2,111	.....	.....	.....	.....	.....	.....
Brazil	.....	74,791	29,792	11,569	28,506	54,445	16,730	22,846	7,018
Argentina	....	90,893	73,049	24,330	.....	6,742	.....	.....	62,422
Uruguay	....	29,405	.....	.....	4,756	.....	13,989	1,057	.....
Chile	.....	.....	.....	24,650	271,818	21,392	19,446	5,779	8,040
Peru	.....	.....	161,143	21,578	31,528	18,081	5,782	.....	.....
Ecuador	.....	.....	....	.....	9,527	.....	.....	.....	.....
Total.	33,276	381,658	294,212	166,333	349,445	110,657	59,881	34,278	77,564

[1]These tables have been compiled from the records of the custom-house at Baltimore. Figures are for calendar years, except in the case of 1848 and 1863, which are for fiscal years ending June 30. Returns for 1863 are somewhat incomplete.

Tables of exports and imports from 1869 to 1896, by five-year periods, compiled from the reports on *Commerce and Navigation*, are given on pp. 57, 65. Tables of the exports of flour are given on pp. 18 note, 51 note, and tables of the imports of coffee on pp. 29 note, 30 note, 33 note, of hides on p. 25 note, and of guano on p. 43 note.

Imports into Baltimore from South America.

COUNTRIES.	1808.	1810	1816.	1823.	1827.	1838.	1848.	1858.
Colombia	.....	28,946	3,389	53,144	37,488	2,816	6,250	60,010
Venezuela	8,244	241,330	84,764	171,836	11,884	170,867	215,004	154,666
British Guiana	27,834	.....	.....	13,432	.....	.....	5,018	201,557
Dutch Guiana	22,536	28,442	.....	12,535	.....	.....	.....	6,005
French Guiana	.....	.....	4 774	.....	.....	.....	.....	.....
Brazil	.....	31,109	67,322	226,391	634,482	923,146	1,430,565	2,889,305
Argentina	.....	132,600	148,772	62,746	.....	80,262	.....	1,305
Uruguay	.....	35,281	.....	42,381	.....	59,436	227,598	312,658
Chile	.....	.....	.....	118,079	44,264	422,686	166,223	467,802
Peru	.....	.....	.....	250,291	353,901	198,549	43,285	81,085
Bolivia	.....	.....	.....	.....	.....	.....	.....	2,205
Ecuador	.....	.....	.....	.....	.....	84,966	79,963	53,267
Total	58,614	497,708	309,021	950,815	1,082,019	1,947,778	2,173,906	4,229,545